

THE

Country GUIDE

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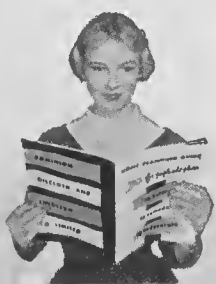
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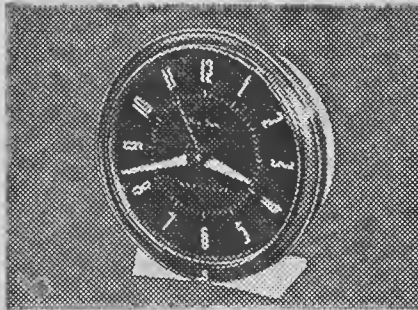
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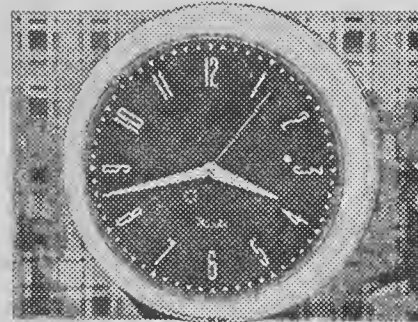
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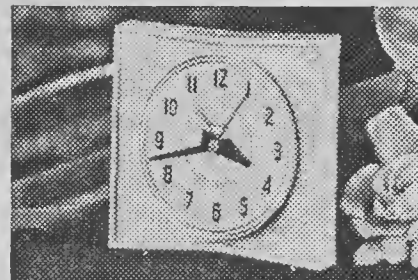
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WESTCLOX



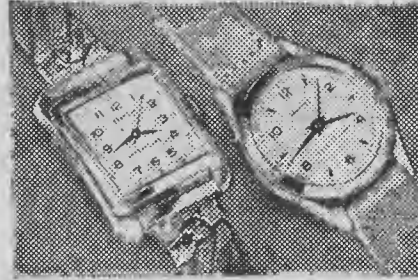
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COVER: This month's picture by Foxcroft is timely and symbolic of spring. The seed cleaning plant at Stony Plain, Alberta, is municipally owned and stands for good seed and better farming through co-operative community effort.

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Field Editors:
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Home Editor: AMY J. ROE
Assistant Home Editor: PHYLLIS THOMSON
Contributing Editor: ANN TILLENIUS
Extension Director: G. B. WALLACE
Advertising Sales Manager: R. J. HORTON

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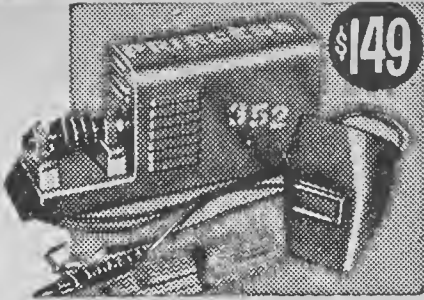
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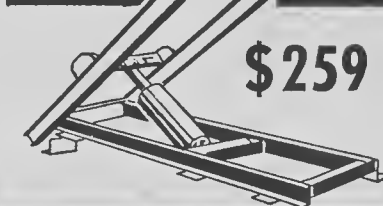


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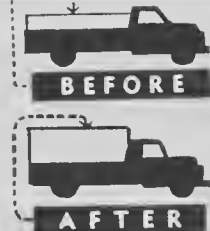
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ALL TRACTION

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Tire size 6.50 x 16 12-ply, will replace 6.00 x 16—6.50 x 16—6.70 x 15. Beyond any doubt, the best change-over yet. Will allow you to carry twice the capacity of a 1/2-ton truck without any trouble. Lock ring wheels as on 1-ton trucks. Price per set of 2 tires, tubes and wheels.

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Two for \$80.00

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650 x 16—NYLON 12-PLY ALL TRACTION. Due to heavy ply, you must have lock ring wheels. Guaranteed as above. Can also supply in SUBURBANITE type tread. Each **\$32.50**
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EXTRA HEAVY-DUTY CHAINS

PAD TYPE TRACTOR CHAINS

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650 x 16	\$12.75	825 x 20	\$19.75
750 x 16	14.00	900 x 20	21.50
700 x 17	14.50	1050 x 20	24.50
750 x 17	14.50	1100 x 20	26.00
900 x 16	16.75		
650 x 20	15.75		
700 x 20	17.50		
750 x 20	18.50		

PASSENGER		TRUCK, DUAL	
600 x 16	\$8.85	700 x 20	\$24.00
650 x 16	8.85	750 x 20	27.50
670 x 15	8.85	825 x 20	29.00
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		1100 x 20	36.00



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9 x 24	\$31.79	13 x 24	\$45.48
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10 x 28	37.40	14 x 30	57.47
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11 x 38	50.10	15 x 30	64.13
12 x 36	56.21	15 x 34	77.27

Write for Sizes Not Listed.

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New first line, national brand, 6-ply tires. A real oversize for 650 x 16. Princess Spec. Price **\$25** Same tire as above, slightly used. Like new. No repairs. Only **\$18**

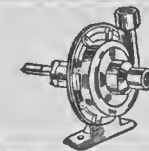


A REAL BUY
7.50 x 20 — 8 ply, plus 2 shock pads (equal to 10-ply). Fresh stock, 70-80% tread, no patches or repairs. Will replace 7.00 x 20 if used in set. Grip tread, non-directional, can be used on front wheels. A real buy **\$33.50** at or 4 for \$128.00

12-Ply Combat Tires 8.25 x 20
Recommended for Low Speed Only, brute rugged strength (equal to 20 ply), average wt. 140 lbs. Especially suitable for dump trucks, water wagons, Redi-Mix trucks, dirt haulers, and all off-the-road work. Almost impossible to break or cut through. 80% tread, no patches or repairs. Price (Tubes to fit, \$4) **\$55**

COMBAT TIRES — 900 x 20
Recommended for Low Speed only; brute, rugged strength (equal to 20-ply), average weight 150 lbs. Especially good for dump trucks, water wagons, Redi-Mix trucks, dirt haulers, and all off-the-road work. Almost impossible to break or cut through. 80% tread, no patches or repairs. **\$60.00**
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Each 4 for \$285.00.

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SPECIAL, each.....
Same Tire (as above). Take Offs equal to a New tire, no mileage, removed from new equipment. **\$58.00**
Each
Used Tubes to fit—clean, no repairs. each **\$4.00**



1200 G.P.H. NORCO CENTRIFUGAL PUMP

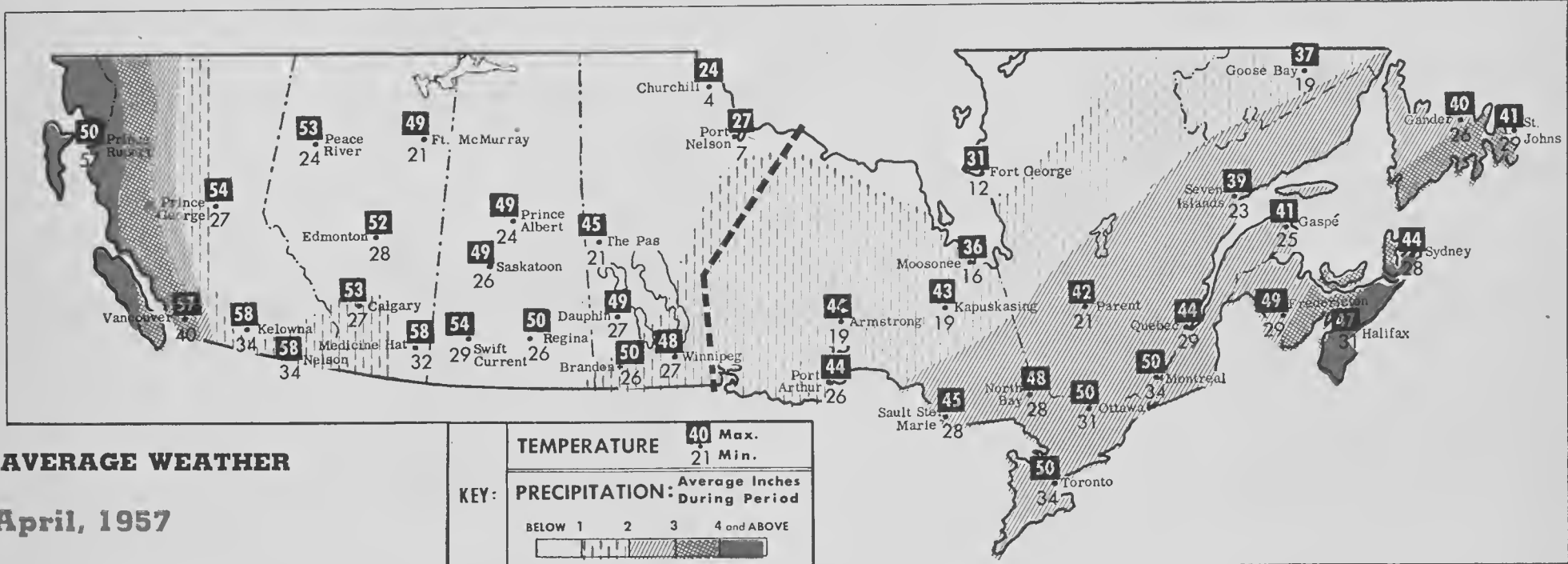
No. P11—Stainless Steel shaft. 5 blade impeller with one oilite bearing at each end. Castings made of rust-proof alloy. 3/4" inlet, 1/2" outlet (adaptable to garden hose). Requires 1/6 to 1/3 H.P. Replacement parts always available. PRICE **\$9.95**

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Weather Forecast

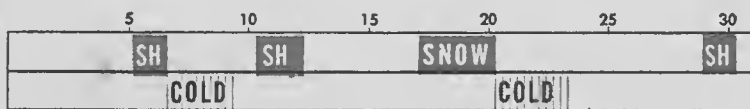
Prepared by
DR. IRVING P. KRICK
and Associates(Allow a day or two either way in using this forecast.
It should be 75 per cent right for your area, but
not necessarily for your farm.—ed.)**Alberta**

Unusually cold weather is expected throughout the province, with mean temperatures everywhere below normal. Temperatures will range from four to six degrees below normal in the southern sections, to more severe differences farther north. Coldest conditions are expected around the 8th and again around the 22nd. Preceding the first cold outbreak fast moving weather fronts are expected to pass through the region every two to three

days, bringing with them much wind and minor fluctuations in temperatures. Following the cold outbreak indicated around the 8th, cooler air will predominate again around the 13th, with the next cold spell expected around the 22nd.

As to precipitation, moderate to large excesses can be expected in the foothill valleys from Calgary southward to the Canadian-U.S. border. From Edmonton on north, moisture prospects are not too good. ✓

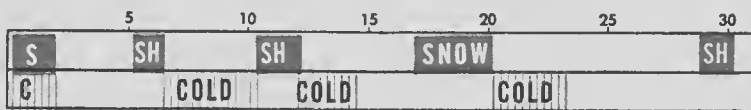
PRECIPITATION
APRIL
TEMPERATURE

**Saskatchewan**

April temperatures will be very much similar to that of last year. For most of the province temperatures will average nearly four degrees colder than the normal. No prolonged periods of warm weather are anticipated. Day-time readings will be in the 40-50 degree range, although occasionally, a day or two with readings in the low 60's are likely. Night temperatures into the low teens will still be common in the first half of April.

Moisture prospects are not too good, except in the southern-most sections, where fast moving cold fronts during the month are expected to result in above-normal precipitation. Elsewhere, particularly in the northern-most sections, moisture deficiencies are likely to be large. Snowfall looks to be about seasonal in the hilly country of the southwest, with the remainder of the province experiencing slightly below normal snowfall to this date. ✓

PRECIPITATION
APRIL
TEMPERATURE

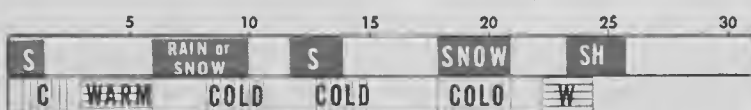
**Manitoba**

Cold weather in March will continue into April this year, a condition not at all unlike the weather that prevailed in March and April of 1956. The month is expected to be characterized by rapidly moving systems which will bring frequent changes in temperatures. Consequently, while the month is expected to be cold, no prolonged cold spells or extremely low readings are likely. In the southern sections temperatures will drop into

the low teens during the cold spells. Sub-zero readings will occur mainly in the northern-most sections of the province.

Moisture prospects are better than for the other two prairie provinces. Precipitation will be especially abundant in the southern half, where storm systems are expected to be most active. In the northern half, precipitation will be adequate but subnormal. Most stormy conditions appear likely around the 8th and 18th. ✓

PRECIPITATION
APRIL
TEMPERATURE

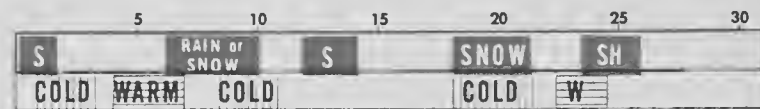
**Ontario**

Temperatures are expected to average below normal in western Ontario, but above normal in the central and eastern regions. Modified cold air will invade this province with regularity. However, these cold spells will be followed rapidly by warmer conditions, resulting in much above normal temperatures, particularly in the southern sections. Sub-zero readings will be rare and generally confined to the northern sections. Highs

in the 70's will not be at all unusual during the month.

Frequent passage of storms will result in an unusual number of cloudy days, as well as considerable precipitation. The entire province should enjoy above normal precipitation with the largest excesses occurring in the southern-most sections. The outlook appears favorable for forage crops and winter grains, but the wet conditions will impede any tillage or planting operations. ✓

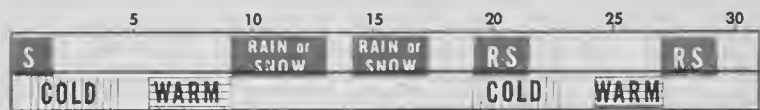
PRECIPITATION
APRIL
TEMPERATURE

**Quebec**

Much warmer conditions than usual are expected to prevail in Quebec. Cold surges into the province will have been moderated considerably prior to their arrival, and as a result, nothing unusually low should be expected during the indicated cold spells. The temperature pattern should be quite uniform, as the cloudy conditions expected throughout the month will result in moderate variations in day- and night-time readings.

Days with storminess are expected to be numerous in April, resulting in much above-normal precipitation in most of the southern sections. In the northern-most sections, precipitation will be slightly below normal. With generally warm conditions anticipated for the month, runoff is likely to be appreciable. Fields are expected to be too wet to conduct any normal farm activity. However, cover crops should benefit from the rain and warmth at this season. ✓

PRECIPITATION
APRIL
TEMPERATURE

**Maritime Provinces**

April temperatures will average warmer than usual throughout the Maritime Provinces. With cloudy skies expected to be quite numerous, night-time readings generally will be rather high for this time of year. At the same time, unusually warm days will be few. Mildest weather is expected around the 5th, 14th and 26th, with coolest conditions occurring at the beginning of the month.

Moderate to large excesses of pre-

cipitation are anticipated for the New Brunswick-Nova Scotia area. Following the first week, stormy conditions are expected to be prevalent and, except for the Labrador region, precipitation will mostly be in the form of rain. With temperatures much above the seasonal average, snow cover in the area will diminish rapidly. The warm and wet conditions will be favorable to pastures and winter grains, but the wetness will limit farming activity considerably. ✓

PRECIPITATION
APRIL
TEMPERATURE



Look!

NEW

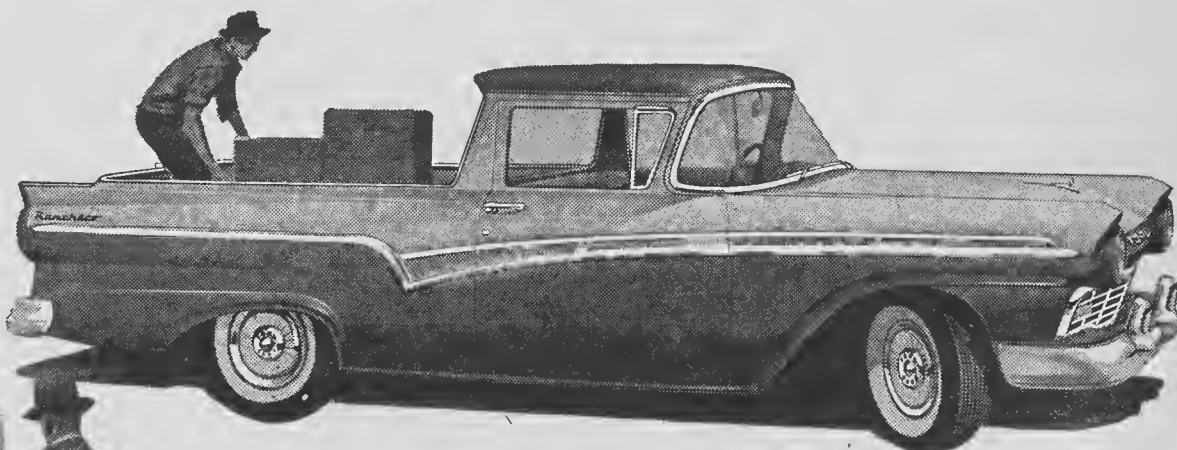
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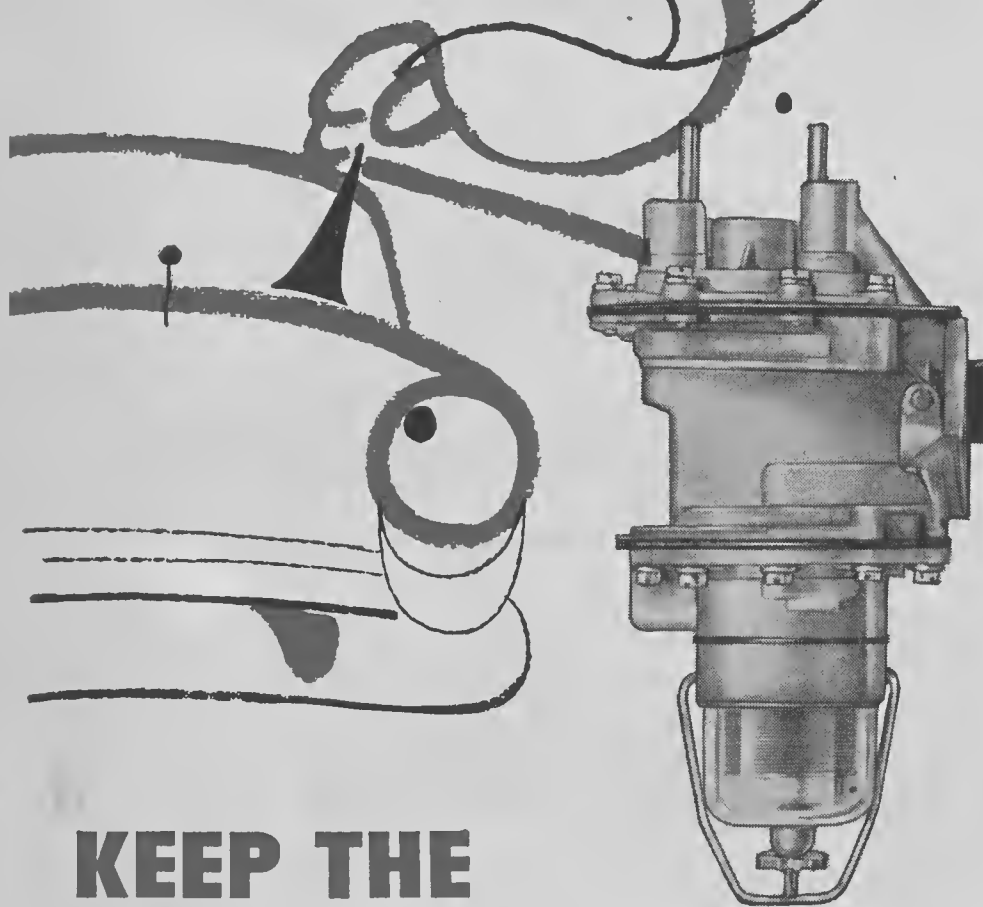
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FARM NOTES

Loveridge Says Keep Production Up

CONSUMPTION of milk and milk products in 1956 exceeded Canadian production for the first time since dairy statistics have been recorded. This fact was brought out recently by Gordon Loveridge, president, Dairy Farmers of Canada, at the convention of the Alberta Dairy Farmers' Association, in Calgary.

Mr. Loveridge predicted that, while the existing difference between production and consumption was small, it could increase fairly quickly. According to the Gordon Commission, Canada's population is likely to increase by 60 per cent over the next 25 years. Considering that it takes us four years to grow a dairy cow, there are not many cow generations left in which to develop the herds necessary to handle the anticipated rise in the demand for dairy products.

With the prospect of a strong market in the offing, Mr. Loveridge suggested that dairymen had better take stock of themselves, before the demand outstrips their ability to produce. ✓

Market Prices for Beef

STEERS have consistently brought higher prices per pound on the market than heifers of a similar weight, quality and finish, but the spread in prices at different seasons and on different markets varies widely. This was revealed from a study made by the Canada Department of Agriculture on eight years of sales records obtained from the main livestock markets.

The Department states that there has been little apparent difference between the relative prices for steers and heifers of different grades, the top grades showing as much spread in price as the lower grades. Over the eight years, the price differential in all grades varied from instances when heifers outsold steers of the same grade, to instances when steer prices averaged five cents more per pound, than the same grade of heifers. The records show that on the Toronto market there has been a noticeably smaller spread than in Montreal. Markets at Calgary and Winnipeg have ranged between the other two, with Calgary closest to the Toronto level.



Dr. J. A. Anderson, who is to receive an award for distinguished service.



Gordon Loveridge addressing the 1957 Alberta dairy convention at Calgary.

The study also revealed the seasonal character of heifer marketings. During the past three years, sales of heifers reached a peak in the November-December-January period, when they made up 30 to 38 per cent of the total. In the May-June-July period, heifer marketings declined to only 20 to 25 per cent of the total. The spread in prices widened, or narrowed, in relation to the volume of heifers marketed.

Reasons given by the trade for paying less for heifers than for steers, include: lower dressing percentages, (proportion of carcass weight to live weight); more wastage in cutting up carcasses; and a smaller percentage of the total carcass going into high-priced cuts.

However, Department records suggest that there is a wider variation in dressing percentages between individual animals, even within the same grade and weight range, than there is between steers and heifers. The Department suggests that the carcass rather than the live weight of a beef animal is a much more reliable guide to the amount of meat the animal provides.


Meat specialists in the Department of Agriculture at Ottawa are continuing their studies. ✓

Cerealist To Be Honored

THE American Association of Cereal Chemists will award its highest honor, the Thomas Burr Osborne Medal, to Dr. J. A. Anderson, chief chemist, Board of Grain Commissioners for Canada and director, Grain Research Laboratory, Winnipeg, at the annual meeting of the Association, at San Francisco, in May.

The Medal has been awarded only nine times previously, during the 31 years of its existence. It is given for distinguished contributions in the field of cereal chemistry.

Dr. Anderson enjoys an enviable reputation as an administrator, research worker, writer and lecturer. Under his direction the Grain Research Laboratory has gained worldwide acclaim. His research contributions have markedly assisted Canada in establishing and maintaining high standards of quality for hard red spring wheat, durum wheat and malted barley. ✓

A black and white photograph of a young child, possibly a toddler, holding a small piglet. The child is looking towards the camera with a slight smile. The piglet is dark-colored with a white stripe down its back and is being held in front of the child. The background is a plain, light color.

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Keep a good pig starter in front of them every day until they've hit 35 pounds. And be *sure* it contains the *right* amount of the *right* antibiotic: AUREOMYCIN.

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Ask your feed manufacturer, or feed dealer, for a pig starter containing the *right* amount of AUREOMYCIN. Ask him, also, about GROWING feeds that contain

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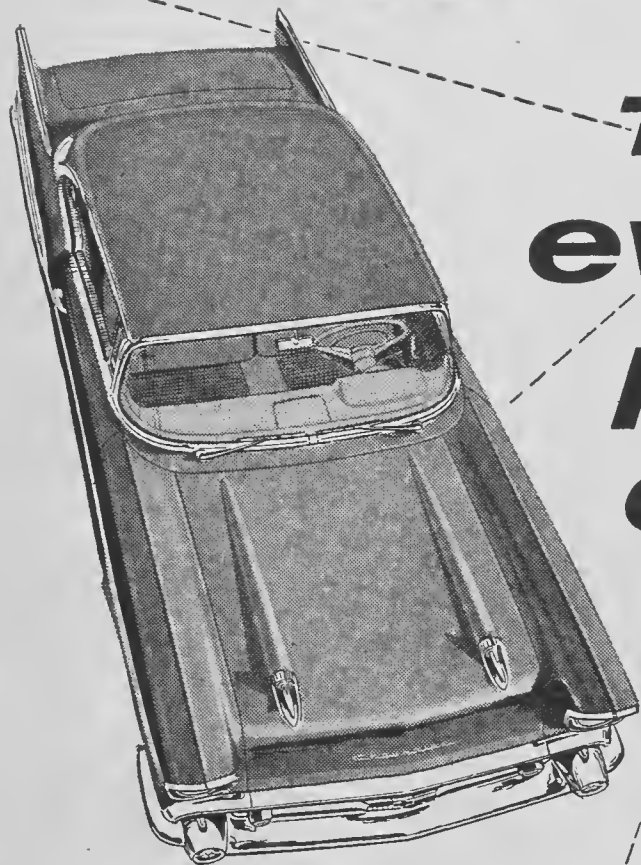
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Who, Me? Fly?

The airplane is bringing farmers closer to their neighbors and helping out with farm operations

by RICHARD COBB

AFTER the canoe, the horse, the wagon, the sled and just plain footslogging had opened up the trails of North America, the steamer, the automobile, the truck and the tractor helped to make the dreams of the trail-blazers come true. Now it may be the turn of the airplane. Already an increasing number of farmers, with a wide range of incomes, are setting out to prove it, through the Flying Farmers of America.

These men believe that the F.F.A. can change the pattern of farming and farm living. They know that by taking to the air they can visit with their friends and make new acquaintances more frequently. They can reduce the hazards of isolation when sickness, injury, or other disasters strike. They can cut the chore time on farms, and do some of the jobs more thoroughly and with less help. They can see their farms spread out as on a map beneath them, and figure out how they are measuring up to the needs of their land, how they can meet particular problems, and what others are doing about them. They see the airplane as an indispensable tool. It makes life a lot more fun, too, and need not cost much more than a car.

See how the idea has spread! It started during a field day at the Oklahoma College of Agriculture in 1944, when ten farmers arrived in their aircraft. They began then and there to talk of forming a club, and by the following spring had organized the Flying Farmers of Oklahoma. The press seized on it, and the idea spread like wildfire. The result was the Flying Farmers of America. They had formed chapters in 32 states by 1946, and now there are 5,000 members in 37 states, and three Canadian provincial chapters with more than 300 members.

The Alberta chapter started in 1955, closely followed by Saskatchewan, and then came Manitoba in 1956. The prairies, spread out like one vast landing field, and with great distances to cover, are ideal for this kind of development. But it is believed that eastern Canada will find a use for it too, just as the New England states are hoping to do in the near future.

Canada is in the F.F.A. on terms of absolute equality. For example, a Saskatchewan farmer, Gerald English of Grayburn, is the director for a region comprising his own province and Alberta, Wyoming, Colorado and Montana. Farmers from south of the line are showing great interest in flying into Canada for hunting and fishing trips, tours, and just to visit with their Canadian neighbors. On the other hand, prairie farmers know that they always get a big welcome whenever they attend Flying Farmers' gatherings in the States.

Naturally, they all talk among themselves of airplanes and the problems involved in flying, but they are going beyond that. These farmers from the two countries are becoming interested in one another's farms. Their emblem is the windsock, and where there is one of these displayed on a farm, they know that a welcome awaits them.

ALL this sounds fine for the farmer, but how about his family? F.F.A. organizers are not aiming to provide an excuse for flying farmers to take off into the blue and widen their horizons while the family exists as a kind of airport staff. Kenneth Butler, of Hutchinson, Minnesota, who is national president of F.F.A., says that they are emphasizing family membership. Each member of the family can take part as he does on the farm, where each has his duties, and husband and wife usually make the major decisions together.

Take the case of Eileen Merrihew, the attractive wife of a Nebraska farmer. She has been elected "Queen" of the Flying Farmers of America, and as such she is responsible mainly for encouraging wives and children to attend fly-in meetings, picnics, pot-luck dinners and national tours, and to persuade the wives to learn to fly, too.

Eileen Merrihew's own experiences confirm the importance of the airplane in her life. She and her husband farm 70 miles from the nearest big town, and because they can fly, they can make quick shopping trips as often as they wish. Last summer, one of their children fell into some water on the farm and was nearly drowned. They were able to fly him to a doctor within minutes, and were told that the child probably would have died if they had not got there so quickly.

Bob Merrihew, her husband, claims he uses his airplane more for farming than for pleasure trips. Among other things he checks the series of windmills pumping water for his farm, and inspects livestock frequently from the air. Both these jobs would be heavy time consumers but for his plane.

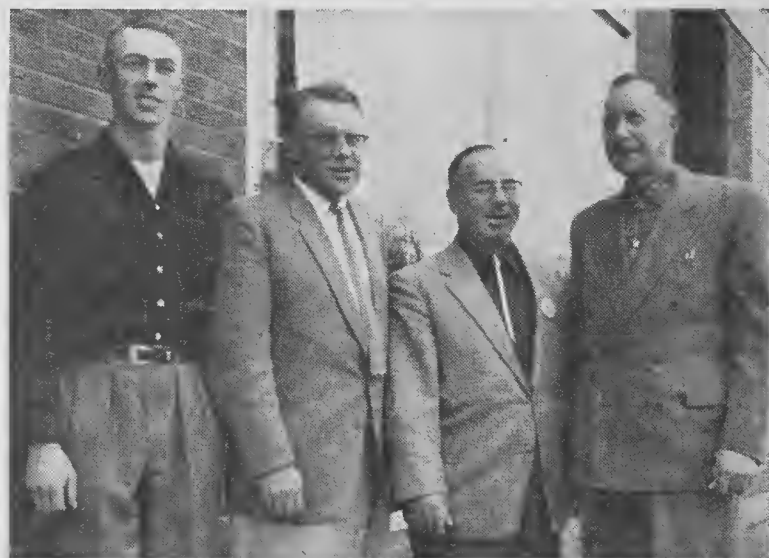
In Alberta, there is a striking example of how the airplane has become a part of the farm equipment. Walter Ross, president of the Alberta chapter, and his two brothers ranch in the shortgrass country east of Milk River. It extends over ten townships and a half-share in two others, with a total of nearly 300,000 acres, and distances up to 70 miles.

Their three airplanes enable them to make a daily check of the yearling heifers, to ensure that bulls from other herds are not among them. This takes about an hour, which is better than six men with saddle horses could do. Also, cattle frequently pick up bones, which may lodge in their throats, and it was practically impossible to save cattle from choking to death, before aircraft made frequent inspections possible.

At round-up, the cattle can be identified easily from the air, because their left ears have been lopped off. Aircraft can reduce a week's work to a single day, and do the job more thoroughly by spotting the hidden cattle, and co-operating with the men on the ground to bring them in.

Their father, George Ross, took up flying in 1916, served with the old Royal Flying Corps, and was a pioneer airline pilot. He started to use aircraft extensively on the ranch about ten years ago, and now they are an essential part of it. Walter's wife, Margaret, is also a keen flyer and is "Queen" of the Alberta chapter, which has more than 100 members.

THE Manitoba president, Peter Thompson, is another who uses an airplane to handle cattle, flying over his Brandon farm to spot sick animals or broken fences, and for other routine jobs. He is a keen advocate of the broader use of aircraft in rural life, and hopes that municipalities will see their way to maintain grassed strips at central points, which planes can use in emergencies, such as sickness in the community. (Please turn to page 58)



F.F.A. leaders: Walter Ross, Alta.; Gerald English, Sask.; Kenneth Butler, national president; and Peter Thompson, Man.

HOGS OR BEEF . . .

Which Will Be Better?

This is a thinking-ahead article. The writer is qualified to offer an opinion, but farmers themselves must make the decisions

by D. T. McINTOSH



Market hogs like these, over the next few years, may offer eastern farmers a more profitable outlet for purchased feed grains than do beef cattle.

IN recent years eastern Canadian farmers have been leaving the land in greater numbers than ever before, and turning to more remunerative occupations in a rapidly expanding industrial economy. Their main object has been to attain a higher standard of living for themselves and their families, than they were able to achieve as agricultural producers. Those farmers who remain on the land have been taking careful stock of their positions. They are searching for answers as to the kind of production that will keep them in business, and, at the same time, provide them with a standard of living at least somewhat comparable to those engaged in non-farm occupations.

A review of the current livestock and meat situation leads to the following two conclusions: First, Ontario or eastern farmers, who plan on buying grain to feed livestock for meat production, will stand a better chance of making a profit from pigs than from beef cattle. Second, western farmers, particularly those in Alberta's chinook belt, will have a big economic advantage over eastern producers when it comes to raising beef cattle by turning grain into meat. Here is the reasoning behind these conclusions:

Background of Livestock Markets. It should be understood that Canadian livestock prices reflect the demand and supply situation in the United States market. This is so because there are no embargoes on the cattle and beef trade between the two countries, and because it is possible to export Canadian produced hogs and pork products to the United States. (However, it is not possible for the U.S. to export hogs and pork products into Canada at the present time, owing to the incidence

of hog cholera and vesicular exanthema in the hog population of that country.)

The U.S. has become Canada's main export outlet for livestock and livestock products. At the same time U.S. livestock prices are the highest that are available to Canadian producers. As a result of these conditions, U.S. livestock prices tend to act as a floor for Canadian livestock prices when we have a surplus, and, conversely, as a ceiling for Canadian prices when we have a shortage.

General Price Prospects. Meat prices are not likely to improve much in the next few years, unless the western U.S. drought gets even more severe than it is, and moves into the Canadian prairies.

The U.S. is now experiencing the worst drought in recorded history. In seven of the hardest hit states from Nebraska to Arizona, 530 of the 637 counties in the region have been declared emergency drought relief counties. These states have about 53 per cent of the planted winter wheat acreage, 37 per cent of the beef breeding herds, and 32 per cent of all sheep and lambs in the U.S. While it is true that not all of this production potential is in the drought areas of these states, bad drought in parts of other states would more than make up the difference. Hence, the percentages quoted are a fairly accurate reflection of the amount of production affected by the drought. If the drought does not ease, herds may be reduced to the point where higher prices for livestock may result.

Nevertheless, present livestock population is relatively high; there is an increasing number of big feedlots being established; and production of broilers and turkeys is heavy. It would appear,

therefore, that North America will have enough meat in the next few years to prevent prices from climbing much beyond present levels.

The Population Factor. Eastern Canada is a deficiency livestock area in relation to human population. It has 74 per cent of the people, but markets only 38 per cent of the cattle and 57 per cent of the hogs. Ontario's human population and livestock marketings are about in balance. It has 33 per cent of the people and markets 32 and 37 per cent of the cattle and hogs, respectively. The Atlantic provinces and Quebec are the large deficiency areas in the East. The four most easterly provinces, taken as a unit, have 11.2 per cent of the Canadian people, but only 1.4 per cent of the total cattle marketings and 2.1 per cent of the total hog gradings.

In contrast, only 26 per cent of the Canadian population live in the West, where 62 per cent of the cattle and 43 per cent of the hogs are marketed. Alberta produces the greatest livestock surplus among the western provinces. It has only seven per cent of the population but accounts for 31 per cent of cattle marketings and 26 per cent of hog gradings. Since British Columbia is a livestock-deficient province, it can be readily seen that the prairie region is the main surplus producing area in Canada and is especially dominant in beef production.

Production, Feed and Transportation Factors. However, in spite of the distribution patterns of human and livestock population, eastern farmers can still buy western feed grain and maintain an advantage in pork production. Here are a number of the reasons for this statement.

Eastern farmers, on the average, have a higher grading type of hog than have western farmers. This advantage is particularly noticeable where hog quality in Ontario and Alberta is compared. In the East, feeder pigs are raised on the home farm in barns already standing. In the West, farmers normally would have to build accommodation to expand their hog production. Eastern carcasses are worth a little more in the fresh pork trade than those which are slaughtered in the West and shipped down. This is because western carcasses must be split for grading and, during transit to eastern markets, the exposed bones along the back tend to dry out and turn a grey color. Hence, the loin cuts from the western carcasses usually cannot be sold in the East as "fresh loins," and must be made into "backs." (Please turn to page 80)



Readily available feeders, lower feed costs and relatively equal steer and carcass transportation costs, are factors combining to give western stockmen an advantage over the eastern producers in beef cattle raising.



[Guide photos

What will it mean to farmers other than poultry producers? Here is the story of one hold-out against the big swing to company financing of broiler production

The Amazing Broiler Business

by DON BARON

BECAUSE Len McQuay couldn't get a milk contract on his Galt, Ontario, farm, he is raising broilers now. This probably means, also, that he is now engaged in the fastest-growing, most competitive, and most efficient kind of food production.

Like the poultry industry, his own farm has gone through an astonishing development in its short existence. He has boosted his original capacity of 6,000 birds at a time, in 1951, to 40,000 birds now. He is growing birds in 10 weeks that required 11 weeks five years ago. Likewise, his feed efficiency has been raised from 3.3 pounds of feed per pound of bird, to only 2.7 to 2.8 pounds. Furthermore, while he turned out over 600,000 pounds of broilers in 1956, he is still an independent hold-out in a business fast coming under control of big and well-financed companies.

Efficiency of production seems to be the single important factor in this business.

One U.S. poultry specialist recalled recently that in 1939-41,—the early days of the U.S. broiler business—, it took most growers 13.6 weeks to grow their birds to a three-pound market weight. The feed conversion was 3.95:1.

Today, no grower could survive with such a feed-gain ratio.

The same scientist went on to predict that within a few years, we may be producing four-pound birds at six weeks of age, using only a pound of feed to grow a pound of bird. Since broilers have such a high water content, he even saw the possibility of beating that and making a pound of bird on less than a pound of feed.

That is the kind of business Len McQuay is in. It is true that his story isn't an ordinary farm story, but it was not extraordinary until he got into broilers.

This graduate of the Ontario Agricultural College, worked as an agricultural representative for a few years, then managed a well-known Jersey farm, before deciding to go farming for himself. He bought a 200-acre farm in 1951, found he couldn't get a fluid milk contract, and sold the few cows already purchased. He then hired carpenters to remodel his barn into a broiler house, and has been turning out poultry meat ever since. He wasn't a poultry enthusiast even then. He simply saw in the birds a chance to make farming pay.

GROWTH of the industry has been remarkable. John Summers, O.A.C. broiler specialist, points out that it almost doubles itself every two years. There seems no end to the appetite of people for this meat. For the first six months of 1956, the kill in Ontario was up 61.6 per cent over 1955, to almost eight million birds. In the last half of 1954, less than 200,000 birds a week were killed. In April, May and June, 1956, the weekly average kill in Ontario was up to 343,000 birds.

The unusual part of the McQuay story is that Len McQuay is still an independent operator. John Summers estimates that 75 per cent of the broilers grown in Ontario now are being grown under contract to processors, feed companies, or

other interested concerns. The companies own the birds and the growers raise them for a fee, or salary.

The business is becoming so streamlined that in some cases, a single company may own the hatchery (thus owning the birds that are hatched), the feed firm, and finally the killing plant. In short, they own the birds from egg to carcass. The grower is a paid employee.

A far cry from the farming we used to know? Yes. But it is of interest to every farmer, because while no one seems quite sure just what effect broilers will ultimately have on the beef and pork market, it can't help but affect it to some extent. That is the kind of thing farmers who raise meat animals must compete against today and tomorrow.

The biggest job facing Len McQuay is to maintain his independent position. He wasn't backed by big finances when he started, and his operation has had to pay its own way. Shrewd management has probably made his survival possible.

He says that buying chicks, arranging to have shavings ready at the right time, keeping propane tanks full, selling the birds, and keeping track of his expenses and receipts, force him to spend much of his time behind his desk in the house, or on the road.

Since he disclaims "any close relationship to a hammer and nails," he has paid for carpentry work when converting his barns. But he has built cheaply (there is little weight to a floor of broilers), developed his business as a three-man unit (two hired men), and kept a sharp eye on every detail around the farm.

HIS original barn was converted into a four-storey broiler house with a capacity of 11,000 birds at a time. He sold his first batch of birds for 32 cents a pound, the highest price he has ever received.

"Today, with better feed and better birds, I can do as well selling for 26 cents," he says.

In the fall of 1953, he built a new broiler house, well away from the first barn, so that if he ever decides to sell out, he can dispose of them separately. It measured 130 feet by 40 feet when finished, was two storeys high, and had a capacity for 10,000 birds.

Then, in the spring of 1955, he bought a neighboring farmyard with house and barn, and converted the 52- by 80-foot barn into a four-storey building handling 17,000 birds.

To make use of the 200 acres of land, which has been pushed to high fertility with heavy applications of poultry manure, he is now developing a flock of purebred Suffolk sheep. It numbers 65 ewes, and he plans to build it to 150 ewes, because he estimates that the farm will feed that many. The sheep, and the active family of four young McQuays, provide adequate proof that this is a real family farm.

THE business end of the project requires continuous attention. He buys his feed in a normal manner for the industry. It is provided by the feed company, and paid for when the birds are sold. In this business, chicks, too, can be bought on a deferred-payment plan. And Len states that it has



Len McQuay uses hanging feeders, which can be adjusted as needed. A larger size is used as the broilers grow.

been possible to finance the steady expansion of his enterprise, because of profits from his broiler operations.

Because he refuses to contract birds to any processor, preferring to take whatever the market price may be when his broilers are ready, he arranges his program so that regularly each month a group of birds reaches market weight. This means that he hits high and low markets alike.

Each year he puts four lots of birds through each pen, except the main floor of the original barn, which is converted to use by the sheep each winter. The birds are sold at ten weeks, leaving three weeks to clean up, disinfect, and make ready for a new lot.

Propane brooders are used. Water is piped to each pen under pressure. He has done without mechanical feeders, to keep down costs, and to justify his three-man unit. Crumb-type feed is hauled to the farm in (Please turn to page 61)



This is the barn converted by McQuay to house 11,000 broilers, and also sheep on the lower floor in winter.



ETHIOPIA

Farms by Hand

The soil is fertile, spade and rake are unknown, and the peasant farmer doesn't worry about the future

by CORNELIUS J. JAENEN

The peasant demands little from life, and can produce more than he requires.

FARMERS in Canada worry about marketing their grain, the effects of dumping on foreign markets, foot-and-mouth disease, and other problems. Perhaps a little look at how "the other half of the world" farms will make us a bit more thankful for the privilege of farming in this half.

In Ethiopia, the oxen plod along slowly, followed by a crude wooden plow, and a ragged peasant shouting imprecations and encouragement. His wife, clad in a dirty and tattered cotton dress that reaches to her ankles, follows close behind, methodically, if somewhat slowly, breaking up the muddy clods of rich, red earth. This is Ethiopian agriculture at its best. This is a wealthy Christian farmer, who lives in the highlands. Down in the lowlands, the methods are more primitive; in fact, the lower one goes toward sea level, the lower the standard of living becomes.

Farming is the chief occupation of this isolated country, and it is still carried on much as it was when the Queen of Sheba ruled the highlands. Except for breaking the soil on the highlands with a crude wooden plow, all work is done with hand implements, such as plowing stick, sickle and hoe. The spade, rake, scythe and flail are still unknown: the wheel is scorned. The present enlightened Emperor, Haile Selassie I, commonly styled as Jan Hoy, is aware of the agricultural potentialities of his empire; and he is always reminding the few educated men grouped around him that agriculture is still the most necessary of the world's principal forms of production. But he is unable to effect a real agricultural revolution at this stage; an enlightened leader must be sure he is being followed.

Ethiopian agriculture is essentially a self-sufficing, garden type of farming. It is not undeveloped, because it permits the support of about ten million people. This type of subsistence agriculture will have to continue, until markets for surpluses (when these are produced in sufficient quantities) are found, suitable methods are introduced to improve peasant farming, and transport facilities are greatly improved or introduced.

A significant future promise lies in the fact that the soil is particularly fertile. The Emperor has been convinced by F.A.O. experts that secondary industries, which require raw materials, have to be built up in a

country which is 80 per cent agricultural, if modernization is to follow. He has welcomed the aid of foreign technical experts and research workers. A Development Bank of Ethiopia has been established to provide assistance to enterprising farmers. Just a few members of the ruling classes have availed themselves of this opportunity; land tenure is too insecure to permit the country landlords to embark on experiments. Two cattle-breeding stations, four experimental centers and an Oklahoma-staffed agricultural secondary school and college are now operating. But even the casual visitor to Ethiopia is soon aware of the fact that the work of the experts is not reaching, or impressing, the peasants.

Land is fertile, nature is generous, and provision does not need to be made for the future, so the peasant sees no need for surplus production. The peasants are the most conservative element in the country. Some of the agricultural experts in Ethiopia (several Canadians!) have realized this, and have insisted that the first step should be to introduce better methods among the villagers. The vast majority of "the literate few" despise manual work, so the hope for an agricultural revolution lies with the villagers and peasants.

AIR transport preceded rail service, because of the rugged relief of much of the country. The absence of good roads has not only made communication difficult, and surplus production useless, but it has accentuated the isolation of the country, so that even ideas diffuse slowly. Customs and municipal departments do a great deal to discourage progress, and government regulations seriously hamper foreign investments. Foreign investments are always invited, but terms for concessions are far from attractive. Climate and labor supply are very favorable to plantation agriculture. Still, Ethiopia, which is the home of coffee, is an inconspicuous producer on the world market.

Coffee plants grow wild in the forests of Kaffa province: it was the Arabs who introduced this Ethiopian berry to the Turks. Europeans got it from the Turks, and the Dutch introduced the plant to Brazil, which is now the world's greatest producer. Ethiopia's coffee forests flourish on volcanic soils consisting of recently decomposed lavas and ashes. Besides, the plateau topography provides

essential water drainage and air drainage. Convectional rains allow much sunshine and make cultivation not too difficult. Even subsistence crops could be grown between rows of coffee trees.

The long dry season peculiar to this region is most favorable for preparing the coffee for market. Ethiopian coffee, with the exception of Harar coffee which is grown on plantations started by the Italians, is used as a "filler," but it could be developed for select markets. A good labor supply, good growing and harvesting conditions at intermediate elevations and signs of improving transport facilities make a renewed interest in Ethiopian coffee sound practical. Ethiopia needs coffee for cash.

Cotton is also needful to the development of the native economy; its cultivation on a large scale could cut down the present heavy imports. The extensive methods with unskilled labor in the highlands of British East Africa should be suited to Ethiopia. Small farms using hand tillage could serve the purpose, as long as modern machinery were used in ginning.

There is a distinct advantage, to my mind, in having cotton grown by natives in small plots scattered over the country. This system assists in preventing the serious soil erosion experienced in some of the cotton-growing countries. Ethiopia has very heavy seasonal rains, but to date, vegetation is found to the very tops of most of the mountains. The present fibre is

short and of only medium quality, suitable only for low grades of cloth. Cotton is being advocated as a sound crop by all the experts, because the chestnut-brown soils of southern Ethiopia are a good seed bed. Labor is cheap for weeding, cultivating and picking. Cotton clothing is most suitable for the natives, as it is easily washed; it is cheap and not subject to destruction by moths.

IN the growing of other crops the Ethiopian peasant has already proved his ability. Oilseeds are the country's second chief export. Millet and sorghums, of which there are many varieties in the country, are the favorite cereals. They are exceptionally drought- and pest-resistant, but they seem inferior as human foods. Their presence does suggest a long dry season such as is typical of Ethiopia.

Corn, Cayenne peppers and sweet potatoes have spread since their introduction in the sixteenth century by the Portuguese. Citrus fruits and the entire group of temperate fruits and vegetables can be grown, as the Italians demonstrated, but the Ethiopian has no desire to grow these. Even the educated classes who study about vitamins do not believe in eating them.

On the lowlands all tropical fruits and sugar cane do extremely well; again, the natives are not particularly

(Please turn to page 64)



While donkeys are frequently seen carrying heavy burdens like these, the mules are owned and ridden by important rural and provincial dignitaries.

The Plant That Seed Built

The three-unit seed-cleaning plant on the Franklin Mohler farm at Maymont, Saskatchewan, signifies his belief that specialization, in the long run, is more rewarding

by C. V. FAULKNER



[Guide photos]

REGISTERED seed growers are dedicated men, who strive constantly to improve the quality of their product and their methods of handling it. In this regard, Franklin Mohler of Maymont, Saskatchewan, is no exception. It would be rather surprising if he was, since Franklin is the son of pioneer farmer and seed grower George Mohler, who was elected a Robertson Associate at the annual convention of the Canadian Seed Growers' Association when he retired from active farming in 1949. This honor, given for outstanding contributions in the field of seed production, has been bestowed on only 80-odd growers in the whole of Canada.

The elder Mohler was one of the first settlers in the Maymont area, coming north from the United States in 1904. In 1906, Franklin arrived on the scene, thereby earning a place in the annals of the district as the first white boy born north of the railroad. Like most farm-raised boys, young Mohler learned the business the hard way. By 1930, he was able to assume most of the responsibility. That, too, was the year his father decided to become a grower of registered seed grain.

For their initial planting, the Mohlers obtained enough top-grade Hannchen barley to seed 60 acres. In both quality and quantity that first crop was an outstanding success: the seed was large enough to pass a No. 0 fanning mill screen, and it ran over 50 bushels to the acre. Financially, however, the crop was somewhat less successful, because 1930 was also the year when the very bottom fell out of the grain market.

"We sold our first carload at 22 cents a bushel," Franklin recalls ruefully, "making only about \$100 over and above the cost of the seed."

A preference for established, proved varieties has become characteristic of the Mohler enterprise. His two main seed crops today are Hannchen barley and Thatcher wheat. Unlike many other growers, Franklin has refrained from climbing onto the Selkirk bandwagon, his experience with the new rust-resistant variety having been that it needs very favor-

able conditions to produce a sample as good as Thatcher will produce under normal conditions.

"For our area, Thatcher is still the best wheat," he maintains, "but I agree that growers might be wise to plant a little Selkirk, in case of another rust epidemic."

WHEN the Mohlers first started growing seed, the cleaning process involved a great deal of back work. Grain had to be lifted into the hopper of their 30-year-old Viking fanning mill, and considerable hand picking was also needed to ensure



The Franklin Mohler family near the shelterbelt that protects their home.

that their product would meet the exacting qualifications for registered seed. Now, cleaning is a three-machine affair, which takes care of most chaff, imperfect kernels, and weed seeds found in the crop, without so much muscular effort. Wild oat seed, however, still has to be removed by hand, because it varies so widely in size and weight.

The three-unit cleaning plant was built so that seed brought in from the fields could be lifted from the truck by elevator, and conveyed to a hopper located over the first machine (a Carter disk). From there, a built-in wooden elevator carries the grain to a Link-Aero fanning mill that provides

a strong air blast, to remove lighter seeds that escape the first machine. Another elevator then takes it to the old Viking mill, where it gets a final going-over before bagging. The reason for this arrangement is that barley screenings from both the Link and Viking machines can be marketed as No. 1 Feed, because the Carter disk has already taken out weed seeds and cracked kernels.

"However, if I had to confine myself to one machine I'd choose the Link-Aero," Franklin confided, "but the Carter disk and Link make a wonderful combination."

The staunch old Viking mill is thrown in for good measure, to make the seed cleaning job just that much better—a bit of extra care which marks the careful seed grower. This unit has been in use for 30 years, the only alteration being an extra sprocket that was installed to increase fan speed and give a heavier blast of air.

WHEN The Country Guide called, Franklin Mohler and two of his neighbors were busy enlarging and modifying the cleaning plant. Under the new set-up, a scalper was to be located above the Carter disk. Grain coming in from the fields would be drawn up a 32-foot elevator, to a 280-bushel hopper located in the cupola of the building. From there, it would feed by gravity to the scalper, Carter disk, and the Link-Aero, then through the final grader—the Viking. From the latter, an elevator would take it to any one of four elevated bins (two of 270-bushel capacity, and two of 140-bushel capacity), which could be emptied by gravity feed to waiting trucks. A gravity feed-line from one of the larger bins would lead to a sackholder so that seed could be sacked and weighed at any time without too much hand labor.

"We should be able to handle from 80 to 85 bushels a day now," Franklin estimated.

In addition to the seed bins, there is a 300-bushel bin for screenings which is filled by an electrically powered auger. All bins were being re-inforced with plywood so they will be easier to clean—usually with an ordinary household-type vacuum cleaner.

But separation is only one of the cleaning jobs necessary on a farm growing registered seed. Trucks and harvesters, as well as grain bins, must be thoroughly gone over when changing from one crop to another. This often involves a two- or three-hour halt in the midst of harvesting operations.

A look at Federal government regulations governing the various classes of seed will demonstrate the care a seed grower must exercise to enable his product to qualify. Registered No. 1 wheat seed must contain no primary, or secondary, noxious weed seeds, and not more than three weed seeds of any type, per pound. It must contain no Tartary buckwheat, only 0.5 seeds per pound of any other crop, and seed germination must not fall below 85 per cent. In comparison, No. 1 Commercial seed can contain one primary, or secondary noxious weed seed, and 25 other weed seeds per pound.

IN addition to his registered grain, Franklin grows a little Elite class Thatcher. Only growers whose seed qualifies as Elite stock for three years running are accepted as Elite producers by the Canadian Seed Growers' Association. Elite stock is specially selected seed, eligible to produce first generation registered grain. Although Elite seed is foundation stock of extra high quality, and brings a premium price, requirements are so high and quantities grown so small, that it is not considered a money-making proposition. A Plant Products Division official described it aptly when he termed Elite seed growing a labor of love as far as seedmen are concerned, and further proof of their dedication to better seed production.

The average farmer might well wonder if all the extra time and cost of producing registered seed pays dividends. The evidence would indicate that it does. Registered seed growers generally have a bit more ready cash to meet current expenses than the commercial grower, who is bound by the limitations of grain quotas and storage space. Apart from a more stable market, the seed grower gets a better price for his grain, and

(Please turn to page 63)

Some Fish To Fry

There was more to running a fish hatchery than planting the eggs and sitting around while they hatched. Jerry liked to imagine he was the plant superintendent when Ted was away

by STEVE McNEIL

JERRY watched Kathy walk across the fish hatchery lawn. He tried to hoist a smile to let her know that he was glad she was coming, but he couldn't. He stopped the power mower and looked at her with ill-concealed resentment.

Kathy said, "Hi!"

It was hard to keep from answering her with the same, light camaraderie. She was carrying lunch for them both and for a moment Jerry decided to forget all that had been said before and go with Kathy to Falls Creek. They would dangle their feet in the water and eat sandwiches, then lie on the bank and look at the sky and talk—just like old times. But those days were behind them, and in between were the harsh words and the quiet antagonism because of Lee Manners.

Jerry said, as Kathy walked up to him, "Well?"

"Well! Aren't you going to eat lunch?"

"I thought you'd be eating with Fancy Pants."

She frowned for a moment, as if she were either trying to think who Fancy Pants was or trying to figure why Jerry was letting the break between them become wider, and wouldn't accept her peace-making gesture. "You mean Lee?" she asked.

"I mean Fancy Pants—the new Bagley overseer," Jerry said. "Lee Manners—yes."

KATHY sighed. "We went all through that, Jerry. Just because I went riding with Lee doesn't mean—"

"And just because I'm a guy who works for a government fish hatchery and haven't a big-shot job with a timber company, making a lot of money. Go eat lunch with Lee Manners. All we got is fish! Just fish! We went over all that before, too—when we talked of getting married."

"We went over what?"

Jerry waved an arm, encompassing the hatchery grounds. "All this," he said. "I love it and I've loved it since I started—two years ago—and I'm still going to take the Civil Service examination and get a permanent appointment. I still feel the same way about it."

"But I didn't mean that, Jerry. All I said was that we could get married sooner if you had a job that paid more. A job like—"

"Like Lee Manners," Jerry said quickly. "Overseer for a timber com-

"All this I love and have loved since I started," he said to Kathy. "I am going to take the examination and get an appointment."



pany, maybe. Too bad I don't have smooth manners and a slick way of talking."

"You've been around here so long you act like a fish!" Kathy snapped. She walked away, her back straight and uncompromising.

For a moment Jerry had an impulse to run after her—to tell her he was sorry, to take her in his arms and with kisses and soft words patch up the thing that was between them but he didn't. He started the mower and doggedly began mowing the lawn.

After lunch he told himself that he would forget Kathy and Lee Manners and everything not connected with his job. He remembered that he hadn't taken the water temperature, so he read it, noted it on the chart and then flushed the head trough and cleaned the small troughs. When he finished, he stood inside the hatchery, listening to the sound of the water as it ran into the troughs from the head trough. He listened for the funny gurgling sound that this particular head trough sometimes made, heard it and smiled. The running water was music to Jerry. With the water turned off, after they planted the fish, the hatchery sounded like a morgue. It frightened him to see the troughs empty. He always imagined that there were millions of little fish inside, and in the big pools outside the hatchery, gasp-

ing and dying without water. It was a hatcheryman's nightmare.

Not that Jerry was responsible. He wasn't the hatchery superintendent. It was Ted Lawrence's job, but it made Jerry nervous just to think of it. There wasn't much you could do. If the pipeline broke you could try to fix it, and if you couldn't do that, you had to open the gates and release the fish, giving them a fighting chance in their native waters. But it was a poor fighting chance.

THERE was more to running a hatchery, Jerry thought as he looked at the troughs, than planting the eggs and then sitting around while they hatched. Kathy used to think so, too. She used to sit with Jerry and say, "The important thing is that you're creating instead of tearing down. The loggers are eating up the forests, the miners are digging the resources out of the ground, and they are putting nothing back. You are!"

Jerry smiled ruefully as he thought of what she had said. That was before Lee Manners came to town. And that was before they had tried to budget for two on his salary.

Jerry walked out of the hatchery and met Ted coming up the walk. "How's it going, Jerry?" Ted asked him.

"Okay. I cleaned the troughs. I'll flush out these raceway ponds and pick the loss. I cut the lawn."

"Things are going good," Ted said. "They're going so good I'm going to take five days of that leave I've piled up. Friend of mine in Seattle has an airplane with floats. We're going to see if Canada is kidding about all that fishing up there. There won't be much to do here. Transfer those steelhead fingerlings and take care of the routine mail and the other stuff. Things are quiet."

"They always are," Jerry said, "unless the boss leaves."

"Another thing. I want you to see that Bagley overseer and tell him we're going to fell that fir."

Jerry nodded. "About halfway up the line?"

"That's the one. Get Bub Caldwell to help you for a day. I want it down. First windstorm and the fool thing will go right across the pipeline."

JERRY frowned. He kicked at the grass and then he looked up at Ted and said, "Do we hafta get that Bagley timber guy's permission to fell that fir?"

Ted grinned at him. Ted knew how it was. "Personally I don't care. But officially, yes. We have only water rights through their timber."

Jerry looked at Ted as if his boss were asking him to mow the lawn with his teeth and said, savagely, "All right—I'll ask him."

"Better send him a memorandum, too," Ted said. "Just for the record."

Jerry watched Ted walk away. Normally he was glad when Ted was gone. Not that he didn't like him. He did. Ted was aces. But he liked to imagine that he was hatchery superintendent and when Ted was gone, it was easy to put on the cloak of re-

(Please turn to page 35)



Illustrated by J. H. Petrie



This smart service station is part of a successful enterprise operated by the Sherwood Co-operative Association Limited of Regina. National Film Board Photo.

Talk About Co-operation

CO-OPERATIVES save money. They help to control monopoly. They serve to reduce price spreads. But what other contribution do they make? Do they strengthen society in ways less apparent? Have they unusual significance in the human search for peace and plenty?

These are not simple questions and they have no simple answers but it is certain that if people had learned to get along together; to emphasize their common interests rather than their differences; and to value the welfare of others as highly as their own—in short, to co-operate—this world would be a safer habitation.

Those who learn to co-operate are following principles which have their basis in equity and social justice, and which have proved to be sound guides for the operation of commercial enterprise.

Perhaps the fundamental nature of the co-operative movement should be established. One of the best definitions of co-operative enterprise is this one: "A co-operative enterprise is one which belongs to the people who use its services, the control of which rests equally with all the members, and the gains of which are distributed to the members in proportion to the use they make of its services."

Co-operatives are not based on selfishness. They exist for service. No one can gain at the expense of his neighbor members through the operation of a proper co-operative.

Co-operatives do not reflect the power of wealth. The member has one vote, regardless of the size of his investment in the enterprise.

Co-operatives place full responsibility on the membership. They are entirely free—free to fail as well as to succeed.

What does co-operation mean, and why is there so much talk about it? The Co-operative Union of Canada, through its president, answers the question in this article

by R. S. STAPLES

Co-operatives have nothing to gain through offering merchandise of doubtful value, or entering on high-cost merchandising methods. The member's interest lies in good quality at reasonable cost.

CO-OPERATIVES give experience in economic community organization, but more than this by federating and joining together to serve common purposes, co-operatives themselves co-operate. Their members consequently gain skill in the democratic operation of large-scale enterprises essential to modern mass-production methods. Incidentally, and perhaps more importantly, they gain skill in the use of the very principles on which good relationships between all groups and peoples must ultimately depend.

Co-operatives are little democracies. They apply the principles of democracy to economic operations over a wide range of activities—credit, financing, purchasing, marketing, housing, insurance. They are the means through which people can take responsibility—direct and complete—for providing themselves with the services they need. Without co-operatives people can never acquire the skills necessary for economic democracy. Without those skills and the confidence engendered by their possession, they can never achieve full stature as a people truly free. Herein lies the real social significance of the co-operative movement.

The need for co-operation between people always has been present. Throughout most of his history man-

kind was kept busy finding food for his young and a place to sleep at night. There was undoubtedly a large element of co-operation in these efforts, but the wider problems and dangers we experience didn't exist.

In the course of thousands of years, many new problems have emerged. In the old days it often concerned an acceptable division of the day's kill. Who actually got the bear? The man who killed it because he happened to be standing behind the right rock, or the members of the tribe equally, though some were mending their canoes at the time? Was credit due only to those who took part in the chase; and if so, what of those who could never take part? What about the man who just seized the dead bear and took him home? In these days, our problems concern anti-colonialism, nationalism, racial prejudice, international communism, trade routes, oil reserves and the like, in addition to the primitive problem of food distribution.

One can wonder, however, if the real nature of the problem has changed so much. Maybe, after all these examples and lots more like them are just expressions of man's suspicions, lack of confidence, fear and doubt. Do the same principles, that apply in relationships between individuals, also apply in relationships between nations? Are we concerned about Russia or Egypt really because we know that selfishness is pretty generally distributed within the human race? Are we humans dividing ourselves off into assertive groups, because we live in a

competitive society and will be at a disadvantage if we don't.

Few people are naive enough to suggest that these unfortunate attitudes can be changed quickly, or that classical human reaction is not based on necessity to some extent. It may be a long time before mankind develops the kind of confidence which will be necessary before aggression, whether military or economic, can be effectively controlled.

But having agreed on the goal,—and humanity is on record as having agreed time and time again the desirability of a happy, friendly and peaceful world—, the question is to decide what next should be done about it.

A chicken - or - the - egg argument would prove unprofitable here, but certainly the attitudes and capabilities of individuals, as such, are very important to the successful evolution of the human race, and perhaps to its survival. Not only do individuals set the tone for community living, but they establish the framework of thought into which social progress must fit and thus determine to a great extent the pattern of international relationships.

UNFORTUNATELY perhaps the ability of a people to establish satisfactory relationships does not depend entirely on knowledge. If it did, the task would be much lighter, for knowledge can be acquired with relative ease. The great truths on which good relationships must be based have been known, nevertheless, for many centuries. They have been on record since the earliest books were written. Most of us who follow the Christian faith know, or know of the Ten Commandments and the Sermon on the Mount. Without seeming to (Please turn to page 81)



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Farm cash income in 1956 was 13 per cent higher than in 1955, according to preliminary D.B.S. estimates. Boosted by larger returns from sales of grain, cattle, hogs, poultry and eggs, and by increased participation payments on prairie grain crops, cash income rose in 1956 to \$2,656,000,000 from \$2,353,000,000 in 1955. All provinces except British Columbia and Nova Scotia shared in the increase. ✓

The Ontario Farm Products Marketing Act is going to be streamlined in conformity with the Supreme Court of Canada judgment which was handed down in January. The Honorable W. A. Goodfellow, Minister of Agriculture for Ontario, said, in making the announcement, that amendments to the Act will be introduced at the present session of the Legislature. The Ontario Government intends to do everything possible to provide farmers in the province with legislation required to handle the sale of their produce. ✓

U.S. wheat exports in the first half of the 1956-57 crop year were twice as large as for the corresponding six-month period a year ago. Exports in the period just closed amounted to 225 million bushels of wheat and flour. The corresponding Canadian export for the period is 157 million bushels, which is 40 million bushels ahead of the same period a year earlier. The principal markets for Canadian wheat have been the U.K., W. Germany, Japan, the Iron Curtain countries, Belgium, the Netherlands and Switzerland. ✓

Chick production in registered Canadian hatcheries reached an all-time high in 1956. More than 100 million chicks were produced for the first time in a calendar year. Of this total, the chicks were, by breeds: 41.3 per cent crosses, 18.5 per cent White Plymouth Rocks, 9.8 per cent White Leghorns, 9.1 per cent Light Sussexes, 8.5 per cent Barred Plymouth Rocks, 6.3 per cent New Hampshires and 6.3 per cent miscellaneous breeds. Production in 1956 was about 26 per cent higher than in 1955, and the upward trend is expected to continue into 1957. Undoubtedly much of the increase is due to Canada's increase in broiler production. ✓

Manitoba Federation of Agriculture and Co-operation delegates, at the close of a one-day special meeting held in Winnipeg, turned down, by a vote of 634 to 491, amalgamation terms with the Manitoba Farmer's Union. The majority of those present favored unity within the farm movement, but did not want amalgamation of the two organizations on the basis of the terms placed before the meeting. ✓

Lamps that flood cold storage lockers with ultraviolet rays are being tested in the shipment of Australian chilled beef to the U.K. market. The ultraviolet rays protect the meat from decay, and are cheaper than the carbon dioxide system now in general use, which requires special airtight lockers. Trade officials hope the new system will give Australia an edge in competition. ✓

Feed grain supplies in 1956-57, as reported by the D.B.S., are running 17 per cent higher than a year ago and 39 per cent above the ten-year (1946-55) average. The net supply, (gross, less estimated exports and seed requirements), is calculated at 1.17 tons per grain-consuming animal unit. Grain consumed per animal unit in recent years has rarely exceeded .8 tons. ✓

Field crop acreage treated with 2,4-D and M.C.P. in western Canada reached an all-time high in 1956. A total of 16,347,000 acres received applications of these herbicides in the last crop year, an increase of 2,345,000 acres, or 17 per cent, compared with 1955. Sprays were used on 96.5 per cent of the treated acreage, and dusts on the remainder. The percentage of acreage treated by aircraft was 2.2. ✓

An Australian has invented a radio-controlled tractor which has been successfully demonstrated in Sydney. Radio waves transmitted to the tractor, make it stop and start, control speeds and direction, and raise and lower tractor attachments. It is claimed that the radio waves can do everything that a driver can do when sitting on the machine. ✓

New Zealanders are the world's top meat eaters. They consumed an average of 216 pounds per person during 1955. Per capita consumption of meat (pounds) in some other countries was: Uruguay, 199; Argentina, 187; United States, 161; Canada, 146; U.K., 128; France, 125, and Sweden, 107. ✓

The French government plans to increase production in agriculture. To accomplish this, it proposes to provide family-size farms with favorable terms for credit and taxation. At the same time, it is proposed to establish an agricultural stabilization fund to stabilize both farm income and farm prices. The fund would buy stocks when supplies are excessive and sell when supplies are short. It would also give financial aid to farmers who encounter disasters in the course of producing crops or livestock. ✓

Stilbestrol, a hormone-like chemical that has been used successfully to put weight on beef cattle, did not increase, or otherwise influence, milk production of dairy cows in recent tests made by U.S.D.A. dairy scientists. ✓

A Canadian-led expedition to Mexico has uncovered evidence of the world's first known farmer. Dr. Richard S. MacNeish, Chief Archaeologist, National Museum of Canada, and his co-workers, made the discovery in a Mexican cave. They found a collection of plants and seeds, remarkably preserved and easily identified, which are estimated to be 85 centuries old. It included a lima bean pod, a squash and a rind of gourd. Other evidence brought home shows that Indian farmers some 52 centuries ago were increasing their corn by cross-breeding, and were cultivating cotton. About 200 A.D. their descendants were smoking filter-tip cigarettes from their own home-grown tobacco. ✓

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FREE CATALOG

Under the Peace Tower

by HUGH BOYD

A PART from the extension of the Canadian Wheat Board's term of life with no diminution of its powers, and the increase in payments under the Prairie Farm Assistance Act, the past month in Parliament has not seen much in the way of new legislation of special interest. Interest is now focussed on the approaching budget, with the usual speculation as to its contents.

The general expectation is that Mr. Walter Harris will wind up the 1956-57 fiscal year with a surplus of the order of \$400 million, of which \$100 million has already been earmarked for the forthcoming Canada Council—the plans of which institution are awaited here, as elsewhere in the land, with mingled curiosity and hope, and perhaps just a dash of suspicion.

So, assuming that the finance minister is left with a net surplus of \$300 million in round figures, that would still be far in excess of the \$113 million which he budgeted for nearly a year ago. He is already under sharp attack, especially outside Parliament, for being such a poor guesser. His potential error is of the order of six per cent of the total budget revenue estimates, which is sizable enough. But if the critics are mad at Mr. Harris for under-estimating his intake so badly, what would they be saying today if he had misjudged it by an equal amount in the other direction?

Booms are chancy things to chart in advance. If this one had turned even slightly sour, Mr. Harris wouldn't be pictured by sections of the Tory press as a greedy Mr. Moneybags, piling up surpluses, while the threadbare provinces go in want. He did provide himself with a \$113-million cushion which, in case of a downturn, might have been most useful.

IN the event, the boom accelerated at a pace that nobody really thought likely in the early spring of 1956, not even by the finance minister's most indignant critics of early 1957. So he will wind up with a fat surplus. This is a prospect that might have been found not wholly embarrassing by a minister of finance in the last Conservative government at Ottawa.

It does at least afford an opportunity to pare the public debt, which, during the last couple of years, has been creeping upward again after the impressive series of cuts brought about by Mr. Harris's predecessor. The annual charges for servicing the public debt, partly because of higher interest rates, have climbed to a point in excess of \$500 million, which is hardly small change even in relation to Canada's present prosperity. True, much of the interest is payable to Canadians and may be regarded in the nature of bookkeeping, yet it's a considerable item in the national budget just the same.

A favorite guessing game now and some weeks past, is how Mr. Harris will chart his course for the year ahead. It won't be easy. There are inflationary pressures. These sug-



gest that there shouldn't be too much spending money handed back to the Canadian people. There is also an election just over the horizon, suggesting that it would be fitting to do something nice for the Canadian people, or at any rate for some of them.

The favorite guess is that Mr. Harris will do less for the taxpayer by way of relief, than for some of the most financially harassed sections of the population, especially the aged. This seems a fairly reasonable deduction. The big question remains—how much? Perhaps we will know by the time this is read.

ANOTHER question that is intriguing bystanders is how the Conservatives will fare in the approaching general election. Victory for that party is regarded as a very long shot indeed, but substantial gains could hearten it greatly in its efforts to regain national stature. Not including caretakers, the Conservative party now has its fifth leader in 20 years, and it is in danger of almost total eclipse in the federal arena.

Mr. Stanley Knowles of the C.C.F. was predicting at a meeting the other day that this is just what is going to happen. The Conservatives, he said, will never again form a government at Ottawa. His idea is that the C.C.F. should dig in at the coming election and return as many candidates as possible, so that that party might have a chance of becoming the official opposition.

There are others who feel that if the Conservatives do fall asunder nationally, their place will be taken, not by the C.C.F., but by Social Credit, which has waxed fat largely at their expense, in two of the western provinces and has been casting long-ing eyes on Ontario for some time. As long as Leslie Frost runs things at Queen's Park, the Social Crediters probably would be wasting their time in this province, but even he cannot afford to be complacent. It is doubtful whether the present strange pattern of a strong party provincially and a weak one federally (as found in Ontario and a few other provinces) can last indefinitely.

Much will depend on the extent to which the provincial Conservative organization goes to work for Mr. Diefenbaker's candidates, about which there have been conflicting reports. ✓

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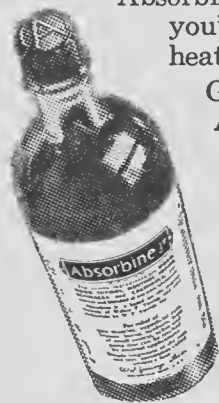
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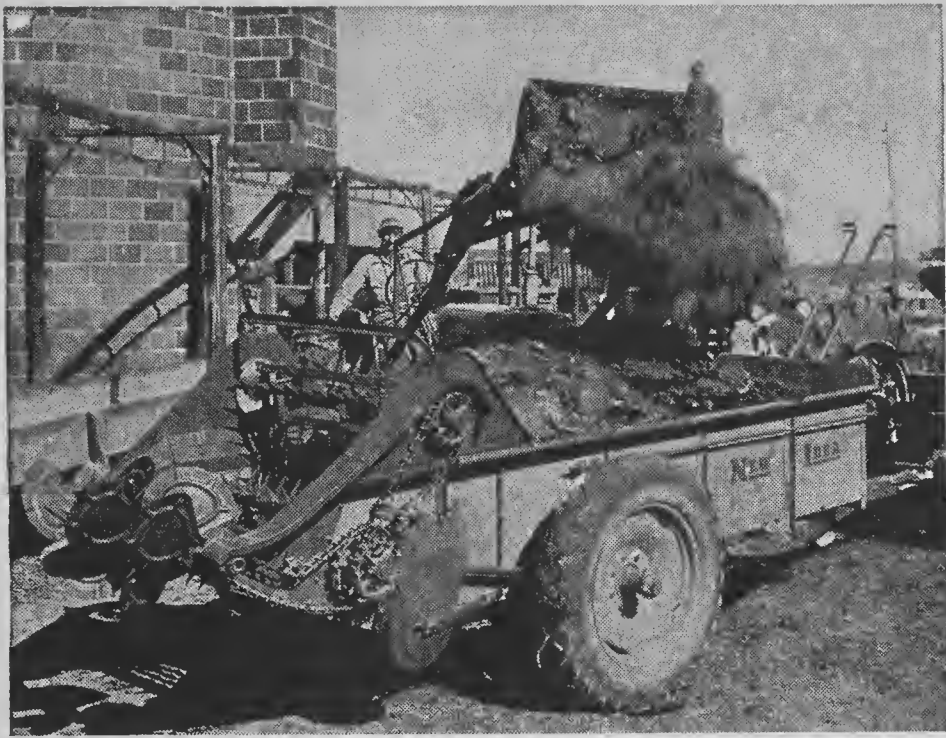


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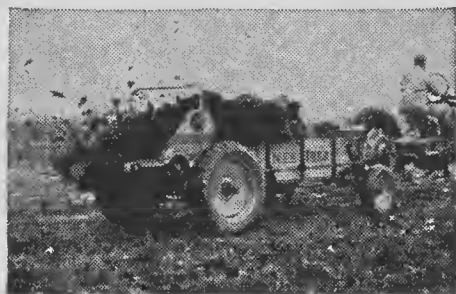
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[Don Smith photo]

The development of calves on milk replacer is excellent, says Dr. Milton Bell of the University of Saskatchewan. Growth rates are above average.

More Milk To Sell This Way

MILK replacer, fed directly to more than 125 dairy calves after they had nursed their dams for only two days, has proved successful without the feeding of any fresh, salable milk. These trials at the University of Saskatchewan, reported by Dr. J. M. Bell, head of the animal husbandry department, show that growth rates have exceeded standards for the breed, and no mortality was experienced.

The replacer included 50 per cent skim milk powder, 20 per cent dried whey, 19 per cent oat flour, five per cent emulsified, stabilized lard, with antibiotics, iron sulphate, riboflavin, and vitamins A and D. Manufactured replacers cost under 20 $\frac{3}{4}$ cents a pound in the Saskatoon area, which is about half the value of fresh whole milk.

Calves at the university were fed one pound of dry replacer with eight pounds of water at body temperature twice daily, as a maximum. But small calves should be fed three times daily to avoid digestive upsets or scours. It is recommended that Holstein calves should be "weaned off" the replacer over a period of a few days, when they weigh 150 pounds rather than at a specific age. There is no data on other breeds, but Jerseys could be weaned at 100 to 110 pounds, Ayrshires and Guernseys at an intermediate weight between the Holsteins and Jerseys.

Calves on replacer should have access to calf starter meal, green legume hay and water by the time they are two weeks old, with free access to the starter until they are eight to ten weeks old. After this a grower of good dairy cow mixture can be fed to a maximum of five pounds a day per calf in the case of Holsteins.

Stilbestrol Can Be Used Sooner

A CHANGE in the regulations for the use of diethylstilbestrol has been approved by the Department of National Health, reducing the weight of cattle which can be fed this hor-

mone to a minimum of 400 pounds. Formerly the lowest permissible weight in Canada was 600 pounds.

The department is satisfied that the edible flesh of cattle weighing 400 pounds or more does not contain residues of stilbestrol, after receiving it in feeds at a level of ten milligrams or less per two pounds of feed per animal per day. The gains the cattle make are within the same range as those made by the larger animals, averaging increased gains of ten per cent, and reducing feed required per pound of gain by about eight per cent.

Ewes Need More Than Silage

GRASS silage should not be the only source of food for pregnant ewes in winter, but it is a useful roughage if hay or grains are fed with it, according to two years of tests at the Lennoxville Experimental Farm, Quebec.

The four rations tested were silage alone, silage with half a pound of oats and bran mixture daily, silage and hay free-choice, and hay alone.

Ewes had eight pounds of the silage alone daily, but lost body condition and weighed four pounds less at lambing than they did at breeding. They averaged 1.4 lambs, but did not have sufficient milk to raise them. When meal was added to silage after the lambing, the situation was corrected to some extent, but lamb mortality was high.

Half a pound of meal mixture with silage throughout the winter kept the ewes in excellent condition. Their weight increased by an average of 18 pounds from breeding to lambing, and they had no difficulty in raising lambs.

The ewes with free access to silage and hay took an average of five pounds of silage and three pounds of hay, and those on hay alone averaged four pounds daily. Their performance was similar to that of the ewes receiving silage and meal.

The silage used in the tests was mixture of grasses and clovers, and contained about 25 per cent dry matter.



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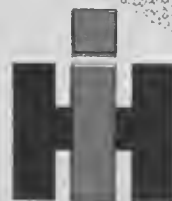
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FIELD



[Neil McKinnon photo]

There is usually a limited supply of manure, so do not use it on the more fertile soils, and spread it lightly so as to cover the largest possible area.

Pick Tractor To Suit the Job

WHEN you buy a tractor, make sure that it can pull the present machinery at the most efficient and recommended speed, says F. W. Bigsby of Swift Current Experimental Farm. It may be that the new tractor has the same power, or even more than your old one, but it may not be able to pull machinery in the same gear because of a difference in speed, and you will be dissatisfied.

It often happens that a tractor will barely handle a load in one gear, but when it is operated in the next lower gear, the engine is not loaded efficiently. It is important that you should be able to select a gear ratio which allows the engine to run at its rated speed.

A tractor with small speed change between gears and a large selection of gears is to be preferred, because it is possible to adjust the speed to suit the tractor power available. Remember this when you're buying, and you'll find that you can do your work more easily and more efficiently.

War on Late Blight

SPRAYS and dusts can control late blight disease in potato crops, but in years of heavy infection, even as many as ten spray treatments have not been able to check it. To avoid the uncertainty and high cost of these methods, the Canada Department of Agriculture continues the search for material to breed resistant varieties, but often they have found resistance at the cost of potato quality.

Breeding for late blight resistance began at the Fredericton Experimental Farm, N.B., in 1934, and some progress was made in combining resistance with a desirable plant, despite the fact that it takes 10 to 15 years to produce satisfactory new varieties. More than 124,000 seedlings were produced, and eventually two new varieties, named Keswick and Canso, were introduced in 1951. Unfortunately, the project was only a partial success, because further research showed that new races of the blight were appearing, and these new varieties were not resistant.

Permanent blight resistance seems like a remote prospect now, but the work goes on. Meanwhile, the use of varieties resistant to some races of late blight, and the application of dusts and sprays, must continue.

New Oats For Ontario and Quebec

SHIELD, a new variety of oats developed at the Kapuskasing Experimental Farm, Ont., has been licensed for sale in Canada. It resulted from crosses involving Victoria, Banner, Hajira, Roxton and Ajax, and it is almost a week earlier in maturity than Ajax, has better rust resistance, stronger straw and a more attractive kernel. It is also resistant to smut, and has shown adaptability in north and east Ontario, and west and northwest Quebec.

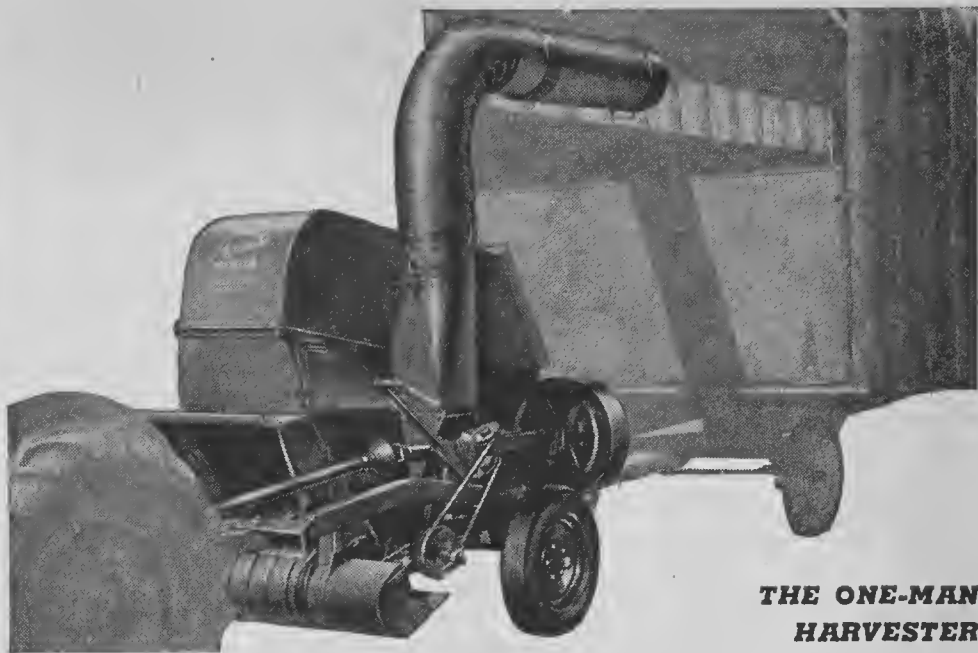
Because of adverse weather in northern Ontario last year, seed stocks of Shield are limited to 500 bushels of Registered No. 1 and 180 bushels of Registered No. 2 for distribution. There is no foundation or elite stock available this year.

The first distribution will be limited to north and east Ontario, and west and northwest Quebec. Order forms are available from the Experimental Farm, Kapuskasing, or the Cereal Crops Division, Central Experimental Farm, Ottawa, or from agricultural representatives. Orders will be received until March 15, or until all the seed is sold.

Doubt About The Nurse Crop

IS the nurse crop a curse? W. L. Pringle, agronomist at the Range Experimental Farm, Kamloops, B.C., says that some farmers are finding that it doesn't pay to seed alfalfa with a nurse crop. He seeded alfalfa and oats together, and the yields in the first year were no greater than from an adjacent field, which was seeded to alfalfa alone. In the second year, the yields were higher from the alfalfa field than from the alfalfa-grain field.

Mr. Pringle points out that the idea of seeding alfalfa under grain is to crowd out the weeds. Oats and barley are large-seeded annuals which grow rapidly and use any available moisture, while alfalfa is a small-seeded



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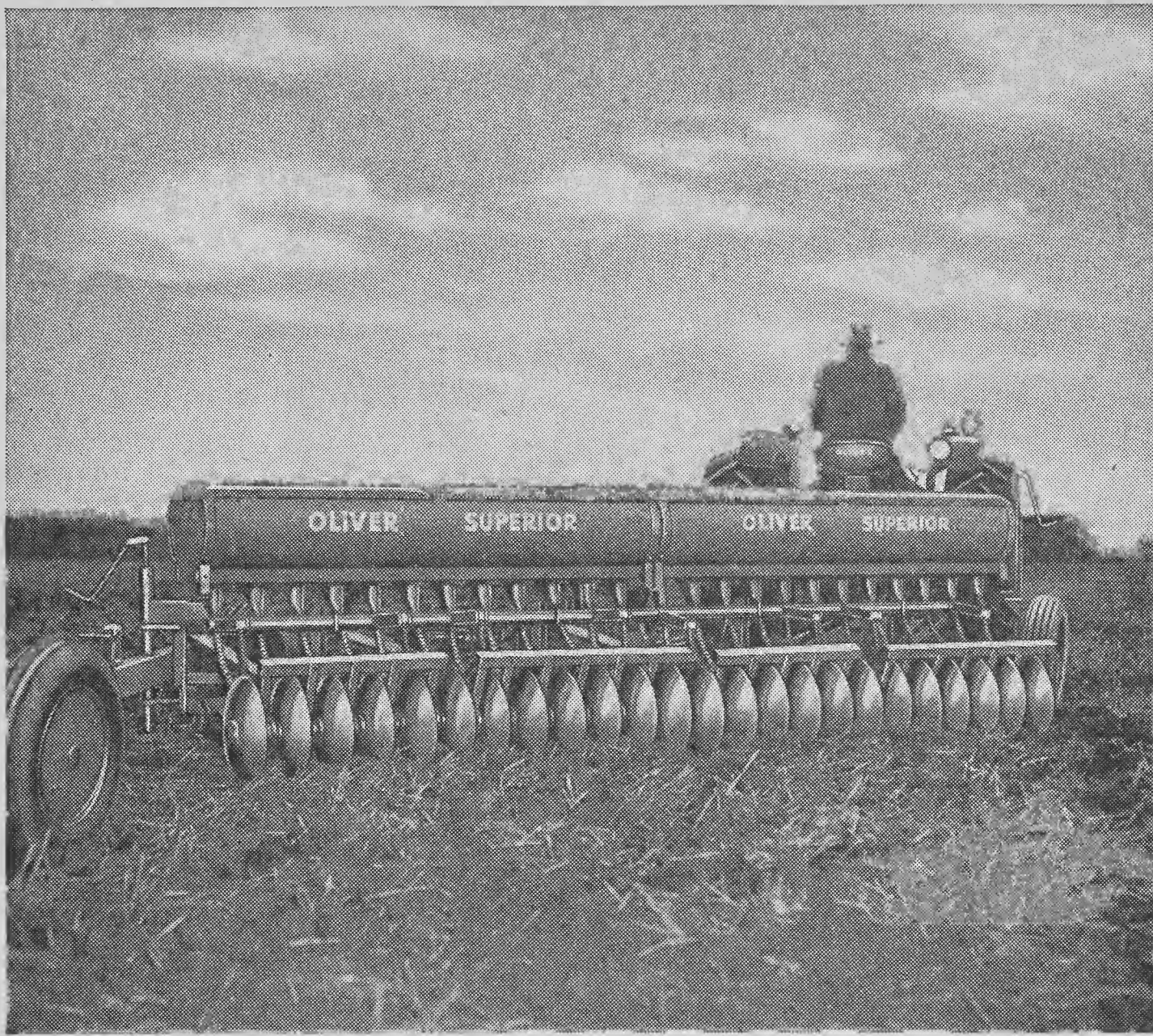
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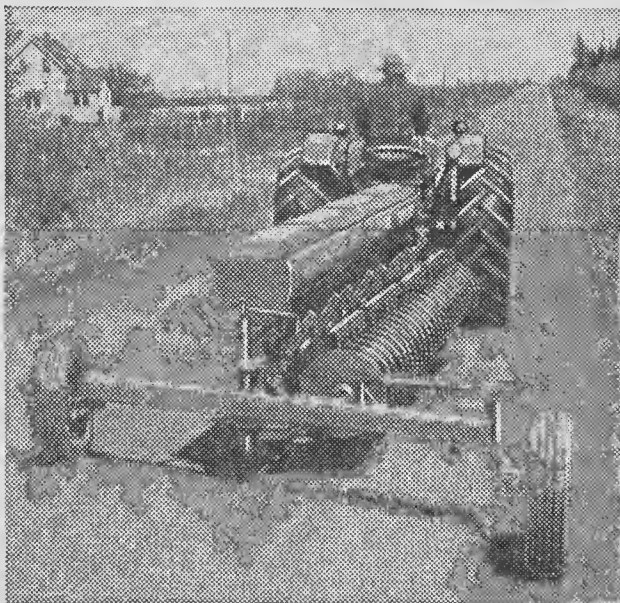
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FIELD

perennial, is slow to start, and is susceptible to drying out in the early stages. He figures that when you sow alfalfa and grain together, it's just as if you added weed seeds to alfalfa, which is frequently robbed of needed moisture and nutrients.

He claims that when alfalfa is seeded alone in a carefully prepared seedbed in the spring, and topped once to cut off weeds, the crop will be vigorous enough to offer strong competition for weeds. If you want to control weeds with a grain crop, he recommends that you cut the oats or barley green in August, and then work the ground and seed alfalfa, which will then have time to establish itself before winter. V

More Rapeseed And More Disease

STEM rot of rape, already reported from several parts of Saskatchewan, was found in a rapeseed crop for the first time in Alberta last year, according to Dr. A. W. Henry, professor of plant pathology at the University of Alberta.

This is not a new disease, nor is rape its only host. It affects a variety of plants, including lettuce, cabbage, cauliflower, carrots, sow thistle and the mustards. Clean land and clean seed are the best defence.

The main effect of this stem rot is to cut off the plant's food supply. The plant is stunted, preventing the normal development of the seed, and as the plant matures, the tissues at the base of the stem become shredded. Hard bodies, known as sclerotia are formed, first appearing white and darkening later. These are similar to the hard black sclerotia of the ergot fungus often seen in the heads of rye.

The increased acreage of rapeseed leads one to expect an increase in the diseases of this plant, says Dr. Henry, and there is no cause for alarm. Remember that clean seed and clean land are the best precautions. V

Evergreens For Shelterbelts

WELL planned and well grown farm shelterbelts provide comfort and beauty. Broadleaved trees, such as ash, elm, box elder and caragana, are usually the first plantings in the prairie region, but these shed their leaves and don't provide the same protection and beauty in the winter.

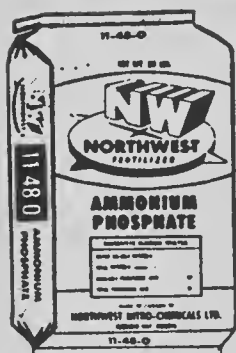
The answer is to plant evergreens like the Canada, white or Colorado spruces, or the Scots pine. These are more difficult to establish and grow more slowly, but if sufficient space is left within the broadleaved shelterbelt, one or two rows of evergreens can be planted inside them. Wait until protection is established by the broadleaved kinds, and then space the first row of evergreens at least 16 to 20 feet from the inside row of the broadleaves.

Seedling spruce and pine for farm planting can be obtained from Forest Nursery Station at Inverhead, Sask., for only a dollar per tree but they should be ordered at least a year in advance.

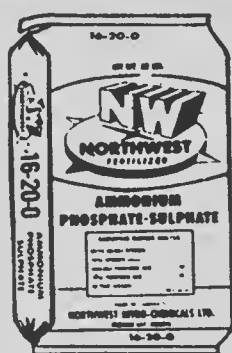
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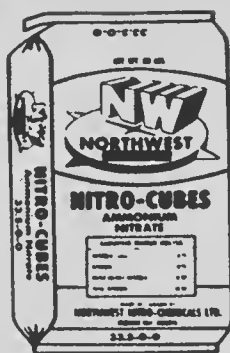
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HORTICULTURE



A constant hazard in modern commercial crop production is the rapid increase in the number of plant diseases. Virus diseases are a case in point.

Virus-Free Strawberries

ONE of many attacks on the large group of virus diseases of plants is being made at the Experimental Farm, Charlottetown, P.E.I., where it has been found that strawberry yields can be doubled, or more than doubled by the use of virus-free plants. Three varieties were grown in sufficient volume for fruiting, and of these, Catskill yielded 13,369 quarts on virus-free stock, as compared with only 5,837 quarts on ordinary plants, per acre. The increase with Sparkle was from 9,318 quarts to 13,006 quarts; and for Premier from 8,832 to 12,614.

Prince Edward Island appears to be out of the peach growing area. Some growers have been trying to establish peach trees on the Island, but attempts made to grow peaches at the Charlottetown Experimental Farm have been unsuccessful. All varieties tested during the winter of 1954-55 were completely killed out. ✓

Insecticides May Affect Flavor

RESEARCH workers at the University of Wisconsin say that vegetable canners may run into some undesirable flavors, following the use of some insecticides and methods of application.

Neither the insecticides nor the type of treatment seem to affect the flavor of canned snap beans or tomato juice, in the opinion of some 200 people who served as tasters. Neither was there much trouble with canned carrots, onions and potatoes, though Lindane in the soil gave a poorer flavor to all three vegetables when canned; and Lindane applied to the foliage gave canned potatoes a different taste. Chlordane, as a soil treatment, altered the flavor of potatoes when canned, while Chlordane applied to the foliage gave canned onions an off-flavor. Undesirable flavors in canned squash resulted from soil applications of Dieldrin and Endrin, as well as from foliage applications of Endrin and Dieldrin.

Pumpkins, sauerkraut and beets were the most sensitive of the canning

crops tested. All three were affected by soil applications of Endrin; but applied to the foliage, Endrin changed the flavor of beets only. Lindane on either foliage, or in soil, detracted from the flavor of beets and sauerkraut.

Chlordane on either soil or foliage injured the flavor of canned pumpkin, as did Aldrin or Dieldrin on the foliage. Neither soil nor foliage treatments with Toxaphene had any effect on any of the vegetables tested. ✓

Chemical Control Of Woody Vegetation

THE Saanichton, B.C., Experimental Farm explains that unwanted, woody vegetation can be quite successfully controlled by chemical sprays during the winter, or early spring months.

One of the advantages of spraying at this season is that the gardener is generally not particularly busy and will perhaps do a little more careful job. In addition, there is less danger of injury to other plants, or crops, from spray or vapor drift.

It is necessary to use oil as the diluent, because only oil seems to carry the chemical through the bark into the inner tissues, where it exerts its killing effect. The use of oil increases the cost of the spray. Its efficiency is increased, of course, if the woody growth is in a dense stand, where less of the material will be wasted. ✓

Windbreaks for Peace River Region

AN attractive publication has recently appeared from the Canada Department of Agriculture, entitled "Windbreaks for the Peace River Region." Prepared by V. Chanasyk and E. C. Stacey of the Experimental Farm at Beaverlodge, Alberta, this small, concisely written, 12-page bulletin is about one-half devoted to short, practical, descriptive notes on various fruitbearing, and non-fruitbearing trees and shrubs suitable for windbreak purposes. A few short notes are also provided about a small number of unsuitable types. ✓



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Leghorn x Hampshire	\$15.75	\$33.50
All Heavy Breeds	16.25	33.50
Delivery after March 17th add 1c per chick	16.75	27.75
Leghorn Cockerels, per 100		\$2.95
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BRONZE TURKEY POULTS**
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1,000—75c each; 500—76c each; 100—77c each.

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the originators of M-Group Barred Rocks, White Leghorns and Light Sussex also producing New Hampshire, Columbian Rocks and introducing this year Barwhite 21's and Barwhite 33's, two new crossbreeds developed to meet prairie conditions. All of our hatching eggs are produced on R.O.P. breeding plants. Free catalogue.

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POULTRY



[Gu.de photo]

Give poultry good, clean housing and a balanced ration, and they serve you well. Cold, damp housing and spoiled feed have the opposite effect.

Avoid Those Egg Slumps

THE Brandon Experimental Farm, Man., has these suggestions for avoiding slumps in egg production. Strike a happy medium between rate of production and body weight, so that the birds gain a little each month from the fall until March. The rate of production can be controlled largely by adjusting the proportions of mash and grain—more mash for more eggs, or more grain for body weight increases.

Faulty management, such as sudden changes in feed or temperature, or exposure to draft, can cause egg slumps. Lowered water and feed consumption indicate a coming slump, and supplementary feed can either check or reduce its effects. Pellets for supplementary feeding can be provided at three to four pounds per 100 birds per day. Wet mash can be fed at four to five pounds per 100 birds, but it takes extra labor to mix it. Continue supplementary feeding until the weather breaks in the spring. ✓

Goose Eggs Are Different

YOU can't incubate goose eggs in quite the same way as chicken eggs. They require the same temperature, but goose eggs should be turned at least three times a day during the 28-day incubation period, and should be turned over completely each time. They should also be wetted about three times a week by spraying with a watering can or by dipping them in water, using water at about the same temperature as the eggs.

Keep the humidity at about the same level as for chicken eggs, or slightly higher if possible.

E. S. Merritt of the Central Experimental Farm, Ottawa, who recommends these turning and wetting procedures for goose eggs, says that proper care should be taken in gathering and storing the eggs for incubation. Gather frequently to avoid chilling in the nests, clean them, and store them at about 55 degrees F. The

shorter time in store, the better the incubation results, so don't hold them much longer than two weeks. ✓

End of Dual-Purpose Bird

THE dual-purpose bird appears to be on the way out, replaced by light breeds for egg production, and heavy breeds for broiler and meat production, according to T. M. MacIntyre, of the Nappan Experimental Farm, Nova Scotia.

In two years of experiments at the station single-comb White Leghorns, and Hy-Lines, produced more income when kept on lay for 300 days, than did the Barred Plymouth Rocks. In fact, allowing for the higher mortality of the lighter birds, and the smaller carcasses left for salvage, the Leghorns still yielded \$340 more than the Barred Plymouth Rocks, and the Hy-Lines \$827 more than the Rocks.

The main factor in this advantage is the better egg-feed ratio for the lighter birds.

The swing to light birds for egg production will be slower in the Maritimes than in some other areas in Canada, because of the good demand for heavy fowl there. ✓

Curtains Save You Money

YOU can cut the operating cost of your infra-red lights in half if you put side curtains on chick brooders. The U.S. Department of Agriculture and Purdue University have experimented with this, and claim that the saving is about two cents a chick.

No great differences in gain or feed efficiency were found when brooders were used with and without curtains during the 11-week brooding period. But the brooders without side curtains used almost 93 per cent more electrical energy than those with curtains. The best materials for the curtains were vinyl plastic, either white or clear, and aluminum sheeting. ✓

RIGHT FILES make handsaw sharpening EASY

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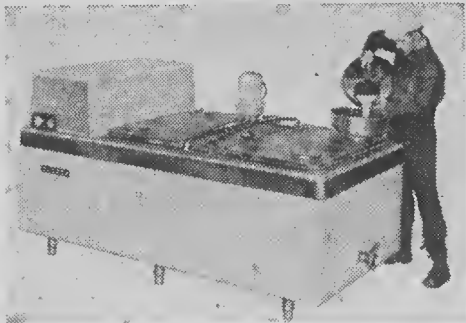
WHY FEED LICE?

Cattle Oiler \$37.50; Five gal. over-post tank kit automatically soaks Oiler \$21.00 extra; Winter use \$16.00 gal. Lice Warble Killer; Summer \$11.00 gal. Fly Killer. Mix each with 20 gal. Fuel Oil. Pamphlet Stockman Supplies.

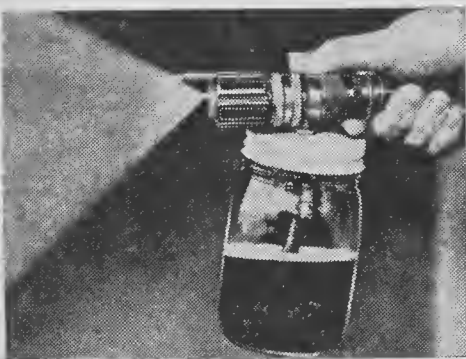
AGENTS WANTED:
DAND'S. Swift Current, Sask.



WHAT'S NEW



This new bulk milk cooler is claimed to have a better pouring height because it is six inches lower than previous models. Agitation is completely automatic and it is said to have a faster cooling unit. Capacities range from 100 to 700 gallons. (Wilson Refrigeration Inc.) (162) ✓



Attached to a garden hose, this chemical applicator gives either a mist or jet of any emulsion or liquid. It is designed to screw onto a Mason jar, which can be used to hold the chemical. Mixing is controlled by a thumb hole. (Bete Fog Nozzle Inc.) (163) ✓



This is a utility shelter, closed at one end, to be used as a range shelter, implement shed, machine shop or feed store. It is 18 feet wide by nine feet high, and is claimed to be easy to assemble, expand and move. (Butler Manufacturing Co.) (164) ✓

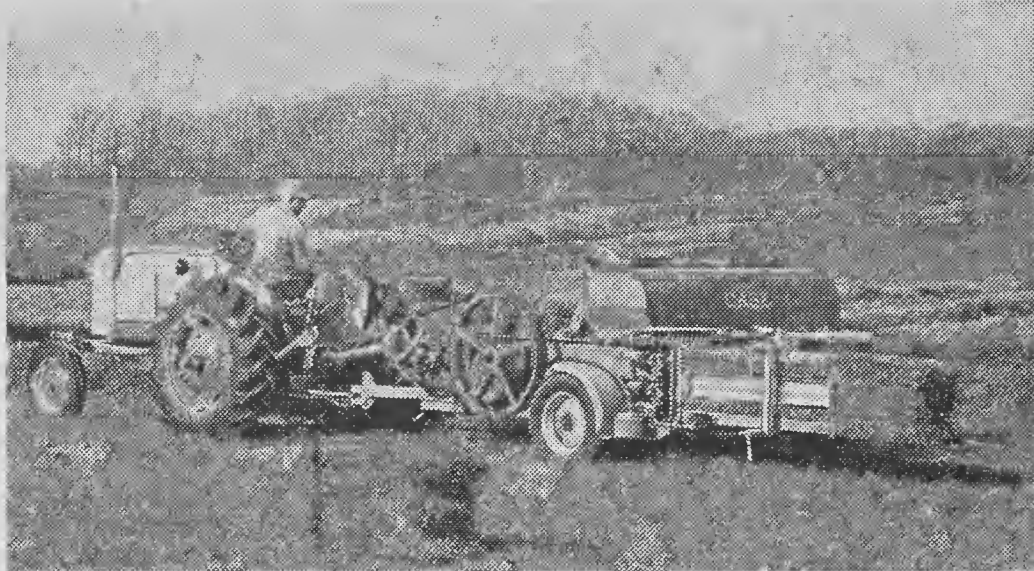


With a rating of over 40 h.p., made possible by a new-fuel pump and injection system, this Diesel tractor is also said to start easily in cold weather owing to a low compression ratio of 16:1, and to use full engine power at the drawbar. (David Brown (Canada) Ltd.) (165) ✓

For further information about any item mentioned in this column, write to What's New Department, The Country Guide, 290 Vaughan St., Winnipeg 2, giving the key number shown at the end of each item, as—(17).

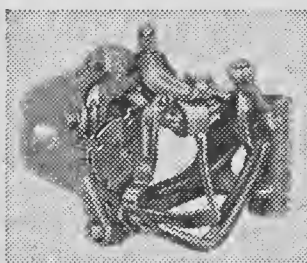
"I baled about 200 tons this summer . . . and have gone as high as 1,015 bales without a miss."—Len D. Elliott

New CASE[®] Balers

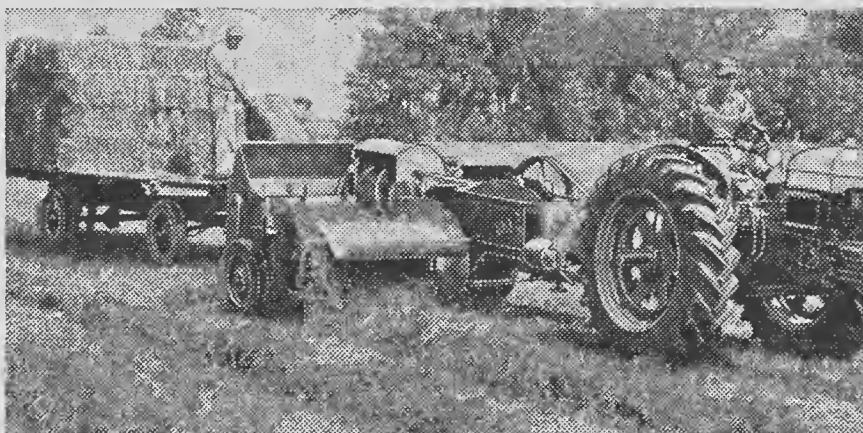


"A Thousand Bales without a Miss"

... with
Sensational
Sure-Tie
Knotter



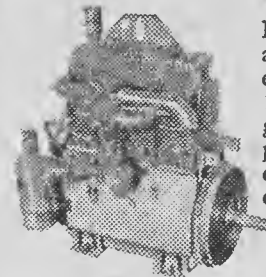
New Farm-Size PTO Baler brings big-baler features . . . such as overhead feed . . . to the economy-priced lightweight class. The new Case 133, shown above with 3-plov 300 Case tractor, has full 26-inch stroke for fast baling in heavy hay . . . six hay dogs for big, firm bales . . . knotters and other working parts shielded from trash to cut down field delays. Case knotters beat anything you ever saw for tying hundreds . . . sometimes thousands . . . of bales without a miss. You save time and you save hay! You save more of the protein-rich leaves, too, because Case balers handle hay fewer times from windrow to bale chamber, and handle it gently all the way. Bigger Case balers shown below give you still greater capacity. See them at your Case dealer's, and arrange for a demonstration of the size that suits you best.



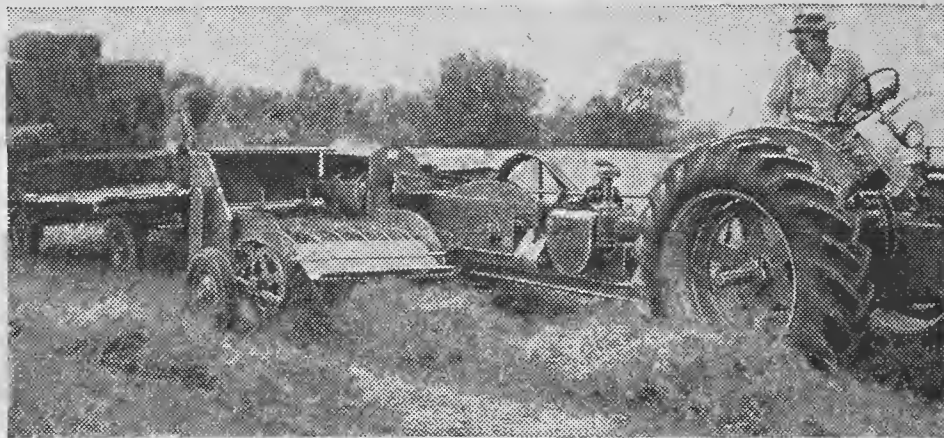
Case 140 baler makes 14x18 bales of uniform length, adjustable over a wide range. Built in both twine and wire models. Shown here on PTO of big 4-plov Case 400 record-breaking tractor.

Double plunger of 140 and 160 balers slices between compressing strokes, splits peak load to save power and boost capacity. Wire-tie knotters make only one twist per tie, lock twist against bale, leave no loose clippings. Strong twist holds bale tight, yet is easy to untwist for feeding. Both the 140 and 160 are available with choice of Case axial-flow air-cooled engine, V-type engine or PTO drive. Case balers are easy to adjust and run, easy to own.

Big-Tonnage Balers
with New
More Powerful
Air-Cooled
Engine



New Case-built axial-flow air-cooled engine, optional on 140 and 160 balers, gives you greater power, pushes out extra tonnage, holds costs down.



Case 160 baler makes big 16x18 bales up to 12 tons an hour. Choice of twine or wire tie. All Case sure-tie knotters are mounted on rigid unit-frame that holds alignment in roughest fields.

Buy your baler now for full-season savings. New Case Crop-Way Purchase Plan and optional ownership plan make it easy. See your Case dealer.



More Bales Per Twine Dollar

With high-strength, full-measure Case baler twine, treated to resist rodents, insect and mildew damage. For catalogs, check items that interest you. J. I. Case Co., Dept. CG-37, Racine, Wis.

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|---|--|
| <input type="checkbox"/> 160 Balers, 16x18' | <input type="checkbox"/> New 133 Baler, 14x18 |
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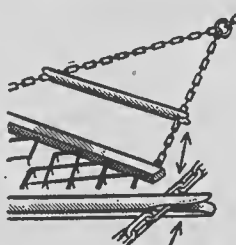
The premium paint at regular prices.

WORKSHOP

Useful Ideas
For Easier Farming

Readers tell about some of the things they have devised for everyday jobs

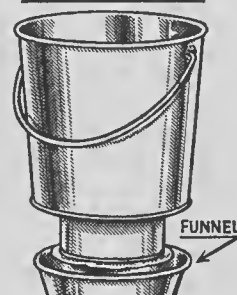
Keeping harrow even. A length of 2" pipe, slotted at each end to take the chains of a harrow or drag, will hold the chains level and act as the perfect evener. The chain will remain in position, without any slipping, and you will find this a great help.—J.J.A.E., Alta. ✓



2" PIPE WITH SLOTTED ENDS TO HOLD CHAINS

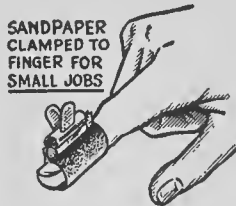
Diesel fuel filter. To make a filter for diesel fuel, cut the bottom out of a four-pound honey can, drill holes in the lid, and insert a filter between the lid and the can. Solder this arrangement to the bottom of a 25-pound grease pail, after making a hole, about 5" diameter, in the bottom of the pail. Set all this in the top of a funnel, pump the oil into the pail, and it will filter through. We have found this about the best assurance of clean fuel that we have had, and not even water can pass through the filter. With constant use the filter pad needs to be changed only about once a week.—E.S., Sask. ✓

25 LB. GREASE PAIL



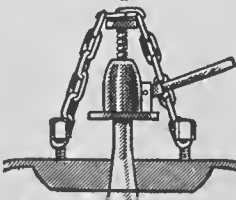
HONEY PAIL FILTER SOLDERED TO BOTTOM OF PAIL FILTERS DIESEL FUEL

Easier sanding. Various sanding jobs can be done smoothly and quickly by wrapping a short piece of sandpaper around the index finger, and holding it there with a small bulldog clip, as you can see in the illustration.—R.L.C., Ont. ✓



SANDPAPER CLAMPED TO FINGER FOR SMALL JOBS

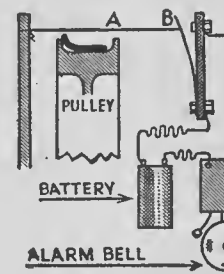
Paper Roller. To make a quick, simple roller for paper products, such as towels, use a wire clothes hanger. Take the hanger apart, slip the roll over the wire, and splice the hanger together again. To make the roll turn evenly, shim up the wire by wrapping heavy paper around it. Hang it up on a nail, and it makes an ideal dispenser.—E.O., Alta. ✓



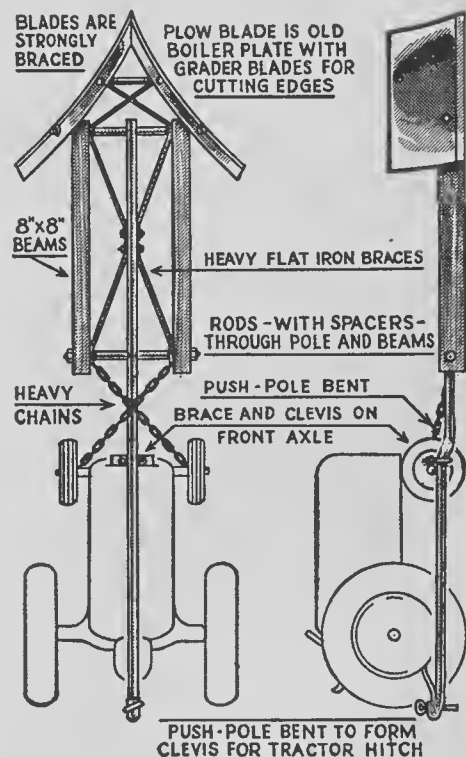
USE JACK AND CHAIN TO REMOVE WHEEL

outmoded farm equipment need not be so difficult if you use this improvised wheel puller. Set up a hydraulic jack and a short length of chain, which is held in place by opposing wheel lugs or bolts as shown in the drawing. The jack presses against the shaft, and off comes the wheel.—H.M., Pa. ✓

Electrical safety device. This applies to a wide range of farm appliances that may give trouble, enabling you to catch the flaw or the possibility of danger before it goes too far. Thread (A) holds a brass strip (B) away from an electrical contact point. In the case of transmission belts, the sketch shows a belt on a flanged pulley, with the belt beginning to cling to one of the flanges. As soon as the belt starts to climb over the edge, it will rub against the thread, breaking it, and releasing the brass strip (B). This makes a closed circuit through wire (C). The batteries will then ring a bell shown on the circuit. This furnishes the idea, but it need not be exactly like this. You can adapt it to other machines.—W.F.S., N.J. ✓



Make your own snow plow. You need two pieces of boiler plate, four feet high, set as shown and strongly braced. Use grader blades bolted to the boiler plate for cutting edges. From the main cross-brace behind the blades, two 8" by 8" beams and heavy, flat iron braces make the frame to hold the push pole, which extends from the blades to rear of tractor. The beams act as skids. The push pole is bent and is attached with brace and

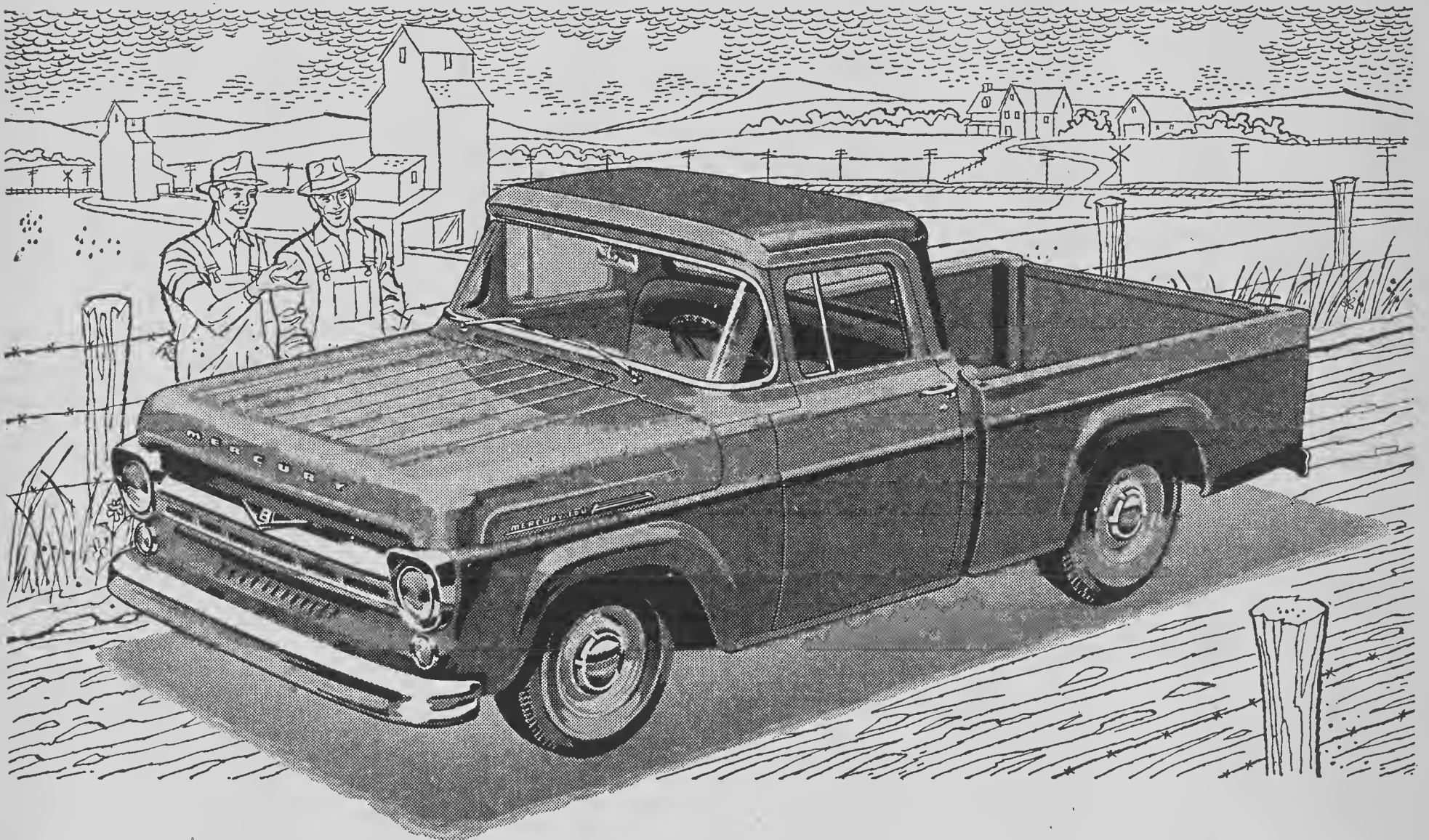


clevis to the front axle of the tractor, and the rear end of the pole is formed into a clevis, drilled with a 5/8" hole to take pin. Crossed chains from the rear end of the skids to the front axle prevent side swing. If the rear points of the blades are bent 4" out from the skids, they will prevent snow from piling between the skids.—A.A.N., Alta. ✓

Introducing...the all new

Mercury Payoff Pickups

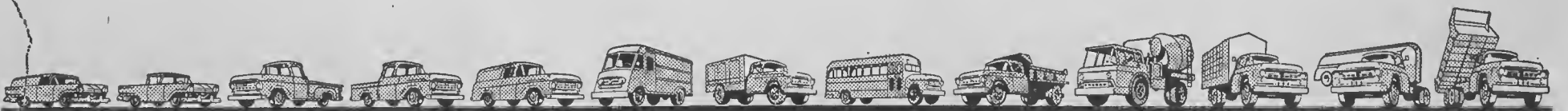
designed to pay off in extra load space,
greater comfort and cost-cutting economy



New Mercury Pickups lead the field with Payoff-Design. New Styleside design pays off with amazing extra load space. New wider cabs pay off in safety and comfort with convenient suspended pedals, deep comfort seats and "lighthouse" visibility. And only Mercury offers modern Short-stroke, low friction design in both Six and V-8 engines. Here's Canada's top lineup of pickups—designed to pay off in economy, comfort and dependability. Move to mighty Mercury trucks now.

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FIL the fixer...

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Swiss precision movement. Unbreakable mainspring, anti-magnetic, 10-kt rolled gold-plated case, white or yellow. Stainless Steel Back.

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Young People

On the farm and at home



The crow, welcome herald of spring, feeds on insects but raids nests of birds.

The Riddle Of the Crow

ONE of the most welcome sounds of March is the raucous "Caw! Caw!" of the crow.

The economic status of the crow is questionable. The crow is condemned as an egg eater and young bird destroyer, feeding on them before grasshoppers are plentiful. From an agricultural standpoint, the case is not so black for the crow. He does not seriously affect grain, but does help to control some of the worst insect pests the farmer has to contend with. Cases have been reported where land frequented by numerous crows escaped serious damage from grasshoppers while adjoining localities where crows had been systematically shot were devastated by the pests. Some sporting organizations attempt to control the crow since it raids the nests of ducks and other game birds. However, the crow is wary, intelligent and adaptable and even though attempts are made to eradicate him he survives.

One of the most interesting experiments attempting to explain the migration of birds was undertaken with crows by Dr. Wm. Rowan of Edmonton, Alberta. In August of 1929 and again in 1931 he and his students trapped hundreds of crows and housed them in large flying cages. Each crow was banded with a number tag and placed in one of two groups, the "control birds" which were kept under normal conditions and the "experimental birds" which were subjected to daily increasing doses of artificial daylight. Instead of being under the influence of the shortening days of winter as were the control birds, the experimental birds were subjected to ever-lengthening hours of light, in other words to an artificial spring.

When the crows were released in November, the experimental crows flew off in a northward direction—not one crow turned toward the south. Later reports indicated that many of them had flown as far north as Lesser Slave Lake and west to Chauvin, Saskatchewan.

The control birds appeared more hesitant, they hung about in the trees near the cages, the urge to migrate south had apparently been lost. In

spite of sub-zero temperatures at Edmonton, they remained there throughout the winter.

Dr. Rowan was attempting to prove that the twice-yearly migration journeys of birds was brought on by the shortening of days. He emphasized, however, that such experiments would have to be repeated many times under many different conditions to prove his point.

Distinguished Club Record

GEORGE R. GREENLEES, Campbellville, Ontario, a Halton County 4-H calf club member has been awarded the W. H. Duffray trophy as the outstanding Guernsey 4-H club member in Canada in 1956. George, a 17-year-old student at Burlington high school has taken part in grain, swine, tractor and calf club projects. This year his swine team won the inter-club competition at Guelph. At the 1956 Royal Winter Fair he was a member of the winning livestock judging team and second highest individual in the competition. George is keenly interested in school sports, has held offices in various clubs, serves as pianist and teacher in his church and was a member of the Junior Farmers debating team which won the provincial contest last year.

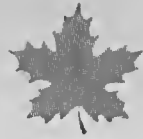
Bursaries For Students

THE diploma course offered at the School of Agriculture, University of Saskatchewan is designed to meet the needs of young men who plan to make farming their career.

Recently a number of bursaries have been awarded diploma students to assist them in their studies. Dennis H. Bartel of Drake, David W. Conev of Gainsborough and G. Reginald Winny of Sovereign were recipients of bursaries valued at \$150 provided by the T. Eaton Co. Bursaries of \$100 provided by the Winnipeg Grain Exchange for second year students were awarded to Alfred G. Simpson of Young, Alfred Weiler of Carlton and Gerald A. Busch of Superb. A \$150 bursary made available by Mr. Gordon Smith of Whittome was granted John K. Gronsdahl of Congress.

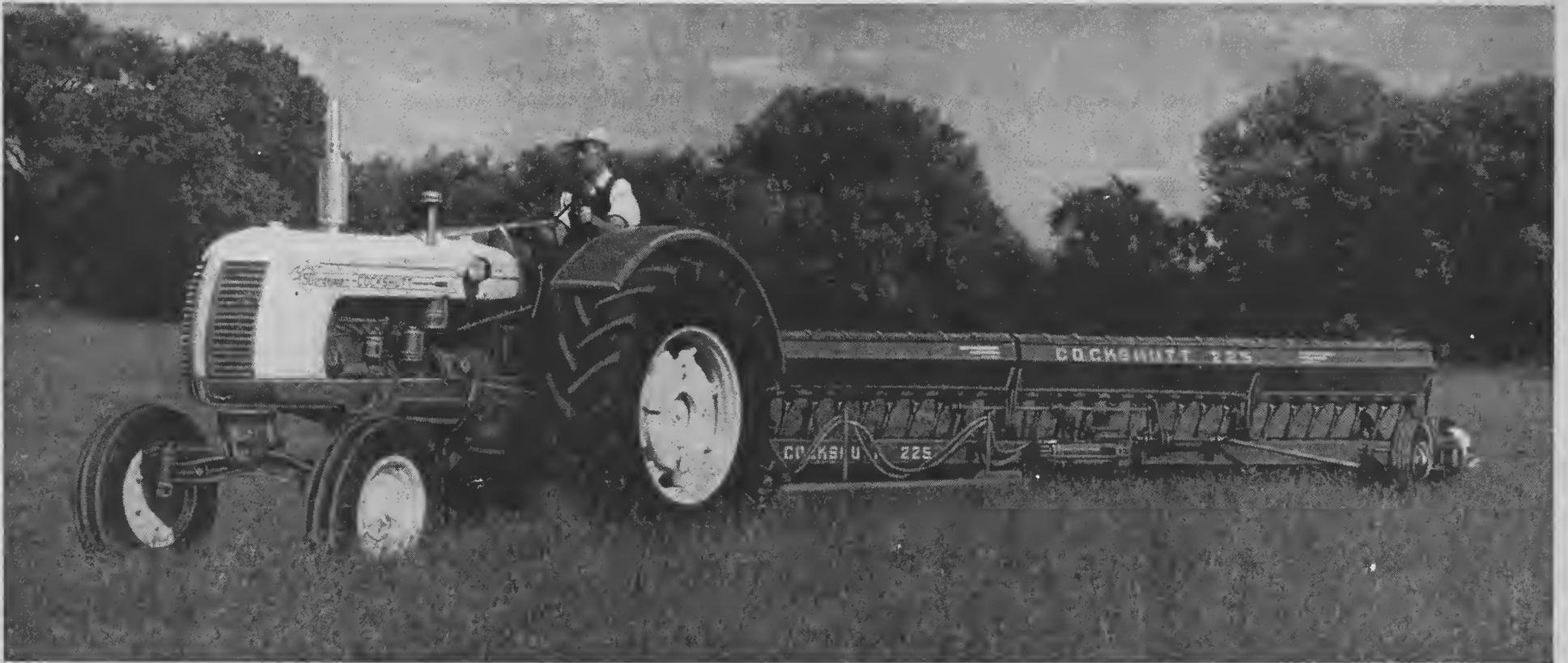
(Please turn to page 32)

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Look to Cockshutt for record breaking performance



Perfect partners—Cockshutt Deluxe "50" tractor and Cockshutt "225" One Way Disc Harrow

Get more work from each gallon of fuel

You'll never know how fast—and at what little cost—you can handle your big tractor jobs until you try a great new Cockshutt. The secret lies in the extra *usable* power engineered into these unmatched Cockshutt machines.

Cockshutt lugging power, for instance, takes you through the heaviest going without that troublesome down shifting that steals time and fuel.

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Cockshutt rugged construction provides a perfect balance of chassis strength to engine power to give you the most efficient

operation possible. These and many more are the big features that enable you to enjoy record-breaking performance and savings every time you "take to the field" with a brand new Cockshutt. Put a Cockshutt to work in your fields—You'll save time! You'll save labor! You'll save fuel!

Cockshutt

Farm Equipment Ltd. Brantford, Ontario

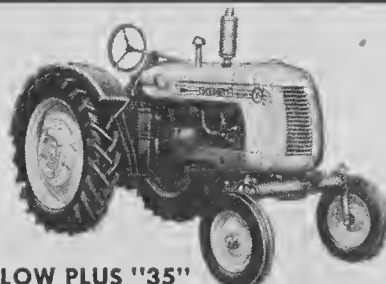
YOUR PRESENT TRACTOR IS WORTH MORE NOW! SEE YOUR COCKSHUTT DEALER FOR THE BEST TRADE IN TOWN!



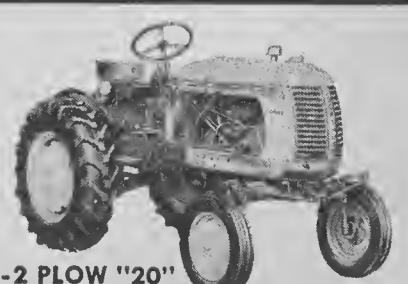
4-5 PLOW "50"
(2 MODELS)



3-4 PLOW "40"
(3 MODELS)



3 PLOW PLUS "35"



1-2 PLOW "20"

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- **LACOMBE BULL SALE**—April 10; Female Sale May 29-30—Total 250 Reg. Hereford Bulls.
- **STETTLER BULL SALE**—April 18—100 Reg. Hereford Bulls.

- **CEREAL BULL SALE**—May 18.
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YOUNG PEOPLE

Spelling Match Provincial Style

MARY TOEWS, 14-year-old Grade 8 student from Horndean school has been named spelling champion of Manitoba. In the final competition



Mary Toews

held in Winnipeg, Mary spelled down 12 other contestants to win the title. Previously she had won spelling matches at Rosenfeld, Altona and Morden. Another rural student, 13-year-old Maureen Hay of Maple Lake school placed second. Mary spelled the word "quagmire" correctly (after Maureen had misspelled it), and then went on to spell "racial" to win the championship.

Mary lives with her parents, Mr. and Mrs. D. Toews, four brothers and

a sister on a mixed farm near the village of Horndean. She attends a three-roomed school where her teacher, Mr. Hardy Kehler, helped her train for the spelling competition. Mary enjoys sewing and knitting which she learned in 4-H club work. She is interested in sports and makes a hobby of collecting pictures of the Royal Family. She plans to take a nurse's training.

More than 600 schools participated in the spelling bee which was organized by the Manitoba School Trustees' Association with the co-operation of school inspectors and teachers. Elimination contests to determine regional and area winners have been in progress throughout the province since last October. Miss Gertrude McCance was official pronouncer for the final competition. Hon. J. S. McDiarmid, Lieutenant-Governor, presented a gold watch to Mary and pen and pencil set to Maureen in recognition of their achievement.

Here are the words contestants misspelled in the final competition: beacon, caricature, centrifugal, clandestine, deterrent, epitaph, ejaculate, fossil, genealogy, herbaceous, justifiable, olfactory, parochial, pharmacist, quagmire, racial. V

Efficiency Competitions

WINNERS of the efficiency competitions, one of the major 4-H contests, are announced by Herb Clark of the Extension Department, University of Saskatchewan. Bay Trail poultry club, whose leaders are Ben and Len Hiebert, took first place with 377 points out of a possible 400. Second place went to Maple Creek poultry club. Bay Trail-Hillsley club placed third and Colonsay-Elstow and the Cory (Saskatoon) club tied for fourth.

In the tractor efficiency competition Duval club, the oldest tractor club in the province having been in operation for seven years, won 357 points out of 400 possible. Club leader is A. D. May. Second place went to Englefield club under the leadership of Merrill Stevenson and Wallace Hanson. V

Cheaper to Buy Western Calves

IT'S good-bye, cow herd, for John Wolfe at Pinkerton, Ontario. He has found that he can buy calves out of the West cheaper than he can raise them, so he plans to sell his remaining 20 beef cows and 10 Holsteins, and gear his 1250-acre farm to a straight feeder proposition.

This grain and grass farmer has a partnership with his son, and tries to reseed each field every 10 years. They run up to 300 head of cattle, buying western calves. He keeps them for 22 months without heavy feeding, and aims at a gain of 800 pounds. They get good baled hay and one and one-half pounds of grain daily during the first winter, and three pounds of grain, along with one of beef concentrate the second winter, but no corn silage. He sells them off grass in early September, and on the last 67 steers shipped last fall, got 59 brandable carcasses.

The noise from good toast should reverberate in the head like the thunder in July.—Edward Verrall Lucas.



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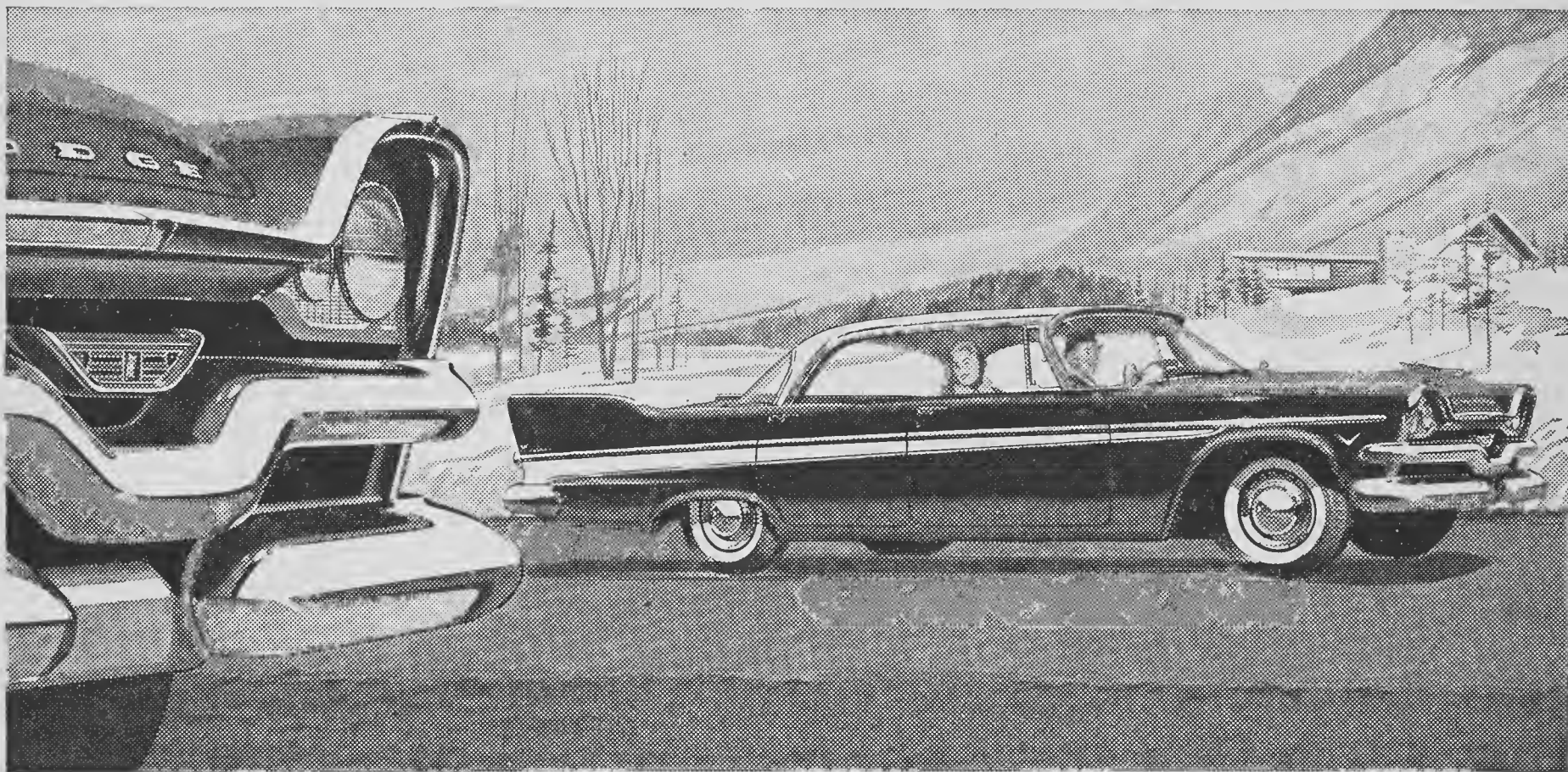
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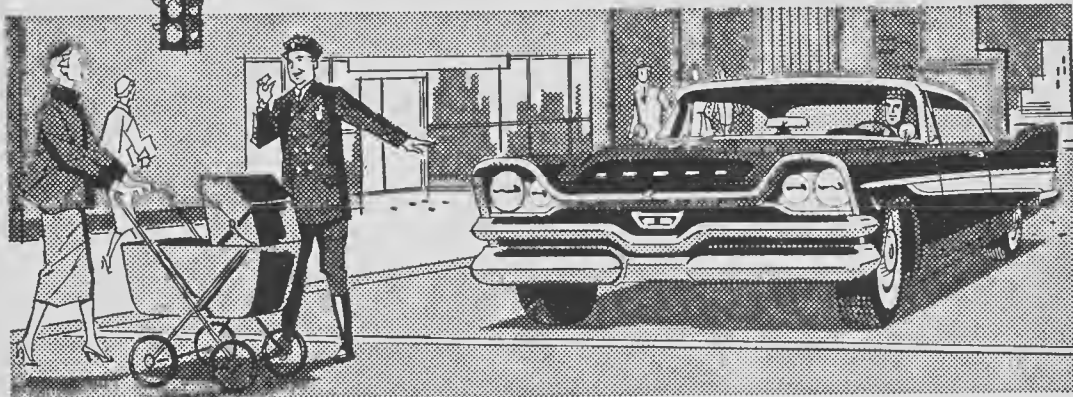
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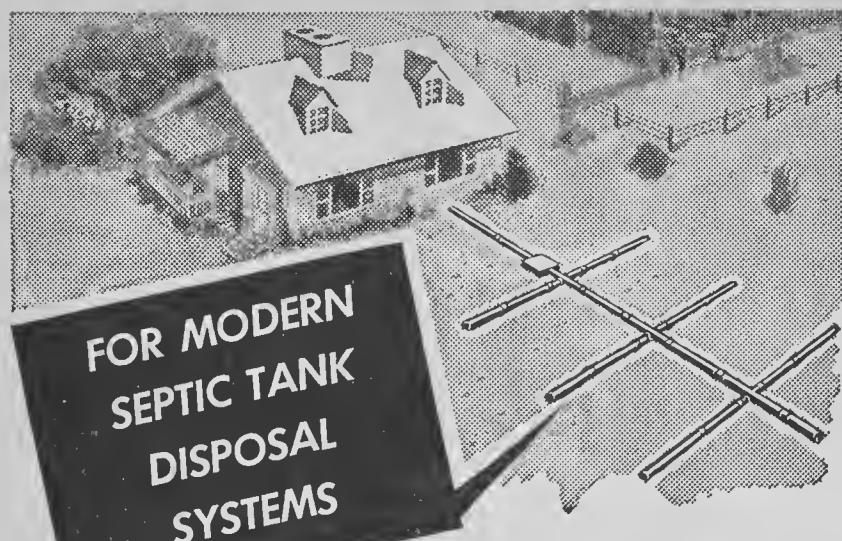
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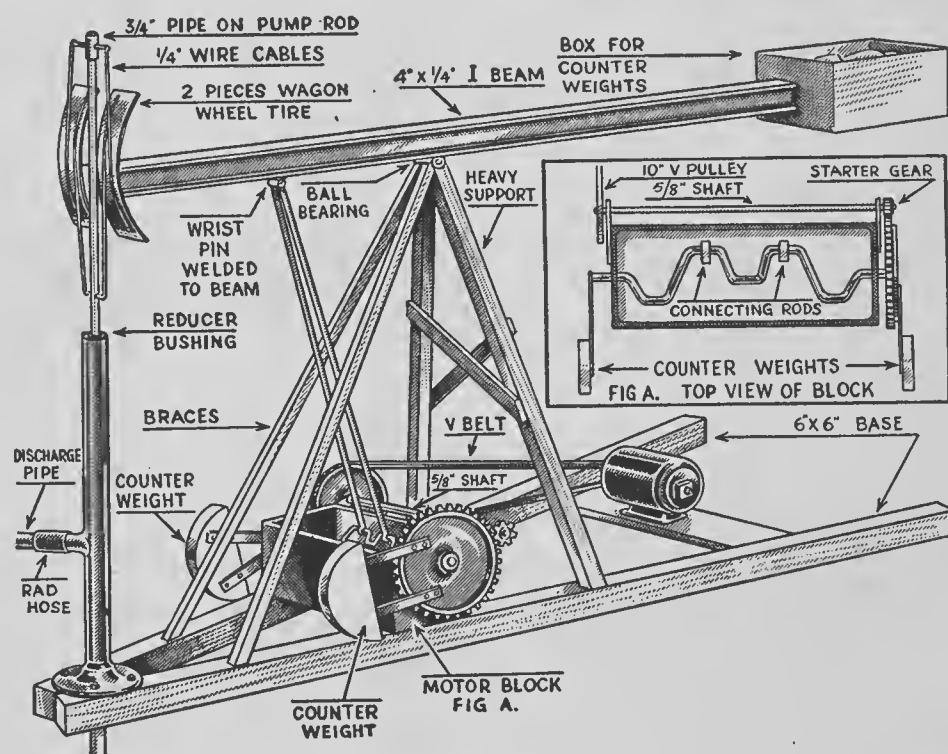
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Build Your Own Pumping Jack

A lot of the materials are ready to hand on the farm if you need an automatic pump for a deep well

by E. McKINSTRY



This is an inexpensive method of building a deep well pump jack, using a tilting beam operated by a motor to provide a 9-inch stroke at 40 times a minute.

THIS deep well pump jack, of the tilting-beam type, will pump a 100-foot well with a 1/4 h.p. electric or 5/8 h.p. gas engine, without any jerk or jar on the pump.

The main beam is 4 x 1/4" I-type, or can be made of two pieces of car frame welded back to back. It tips on a short shaft, mounted on two old combine cylinder bearings. Two pieces of wagon wheel tire are welded to one end of the beam, so that one is on each side of the pump rod. The other end of the beam carries a weight box.

From the wheel tires, 1/4" cable pulls the pump rod both up and down. A pump with iron rods may not need to be pulled down, but wooden rods do. The supports to carry the beam must be solid and well angle-braced.

The engine block is bolted down to the 6" x 6" base. The starter gear is welded to a 5/8" shaft, which runs in ball bearings mounted in flat plates bolted to starter motor holes and timing gear cover holes. Bearings for a John Deere combine grain elevator will do. The gears must mesh properly or the teeth will cut off. A fly-wheel cut in half makes the counter-weights. These are mounted on arms opposite to the two center crank throws. Cut two connecting rods in half and lengthen them with 7/8" pipe so that they reach from the two center crank throws to wrist pins welded to the beam.

A pump head is not needed with this jack. Use a T-joint to fasten the discharge pipe to the pipe, and a reducer bushing in the top of the pipe around the pump rod.

Add just enough weight to the box on the beam to allow the motor to work equally on both up and down strokes. Most deep well pumps call for a 9" stroke, and a speed of 40 strokes per minute. A handy man

with a welder can build this in two or three days, or a man with \$500 can buy a factory-built jack working on the same principles. V

26-Year-Old Permanent Pasture

THE closest thing to perpetual motion on the Amos Tattre farm at River John, Nova Scotia, is the ten acres of permanent pasture that he seeded and top-dressed with fertilizer 26 years ago. It has been growing bumper crops of grass ever since, with the help of annual applications of fertilizer. Now, divided into two fields for rotational grazing, it provides pasture all spring, and most of the summer for the 13-cow Jersey herd. Normally, it makes enough early growth for a cut of hay, and when summer aftermath from the hay-fields forces a short rest in late season, it sends out another mat of green for fall grazing.

Mr. Tattre knows a good thing when he sees it, and says the ten acres of pasture is the most valuable crop on his 130-acre farm. It also provides some grazing for the 30 ewes, at times; and despite its marathon productivity, still produces a good quality of grass, without too many weeds.

The good Jersey milk produced on the Tattre farm, in a district where some of Canada's best Jerseys graze its water-margined and picturesque farmland, is separated, and the cream goes to the Scotsburn Co-operative Creamery. This leaves skim milk for the hogs, to round out the Tattre farm program.

Mr. Tattre runs about 30 head of cattle on the farm, keeps 30 ewes and a few hogs, and grows roots, hay and grain crops in a four- or five-year rotation. V



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Some Fish To Fry

Continued from page 14

sponsibility. He usually stayed in the office late at night, partly because he liked to study fish culture and partly because Kathy would come down. Included in the role he played as hatchery superintendent was Kathy, as the superintendent's wife. It was pleasant play-acting. It was high-class dreaming.

But this time there would be no Kathy, and in addition he had to ask Lee Manners if they could fell that fir. For a moment he toyed with the idea of felling it without asking, but knew enough not to stick his neck out. He went into the office, typed out a routine request, slipped it in an envelope and started for the Bagley office. He walked along, kicking at the gravel in the road and hating to go and ask—just as if Lee were a big shot and he were running after him, asking favors. He was only ten feet from Lee and Kathy when he first noticed them. They were walking up the road, shoulder to shoulder. It was too late to turn off the road and pretend that he was going somewhere else.

He walked up to them and said, "Hello, Kathy—hello, Manners." He held out the envelope containing the request and said, "We want to fell a fir that's leaning across our pipeline. Just for the record, I wrote out a request."

Manners smiled slightly. "You wrote out a request. I thought Ted was hatchery superintendent?"

Jerry flushed, but kept his voice under control. "Ted's gone," Jerry said. "He'll be gone five days."

"Well," Manners said pointedly, "I'll take it up with him when he gets back."

"We're supposed to get it down while he's gone," Jerry said, stubbornly. He was conscious of the fact that he wasn't appearing in the best light in front of Kathy.

"I can't take it up with him if he's gone and you can't fell it unless I take it up with him, so that makes it look like an impasse, doesn't it?" He glanced at Kathy to see whether she appreciated his repartee.

Kathy looked from one to the other, gravely and unsmiling.

Jerry looked at Lee and his lips compressed. That the guy was withholding permission only to make him look bad was certain, but he didn't know what to do about it. He said, "So that's the way it is," turned around and walked back up the road. At the hatchery he noted on the carbon copy of his request that he had made a verbal request on that date and had been refused.

HE stayed in the office that evening and studied, but it was no fun. He couldn't carry on the fiction that he was superintendent, because he knew he wasn't, and it was no fun without Kathy.

The next morning he woke, remembered that Ted was gone and hopped out of bed looking forward to the day. Then he remembered Lee Manners and Kathy and his spirits dropped like a kingfisher after a fingerling trout, but he went on about his routine duties. He took water temperatures, fed the fish and then went for

the mail. It wasn't sorted yet so he stood in the combination post office, drug store, and telephone office and wished with one part of his mind that Kathy would come for the Forest Service mail, and was fearful, with the other part, that she would.

When she opened the door and walked in, he didn't know whether his heart bounced from happiness or not.

"Hello, Jerry." She came toward him. The others in the post office looked at them curiously and then looked at the ceiling or the floor, their ears wide open.

"Mail isn't sorted yet," he said, for lack of something to say. There were plenty of things he could have said. He could have said, "You look like an angel . . . Come down and eat lunch

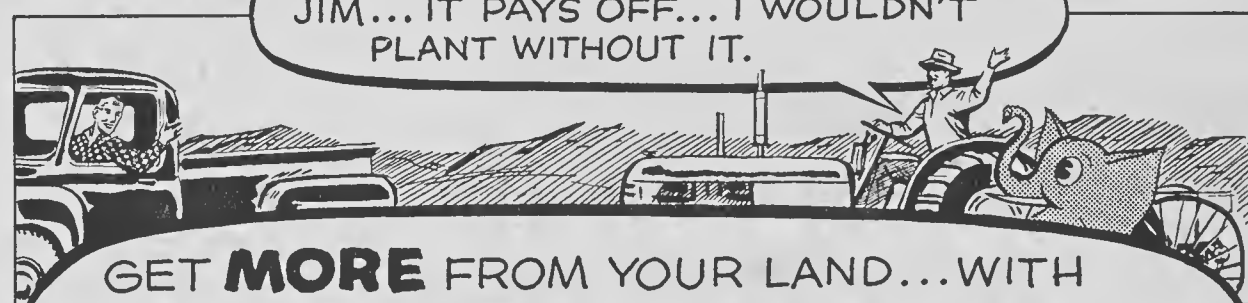
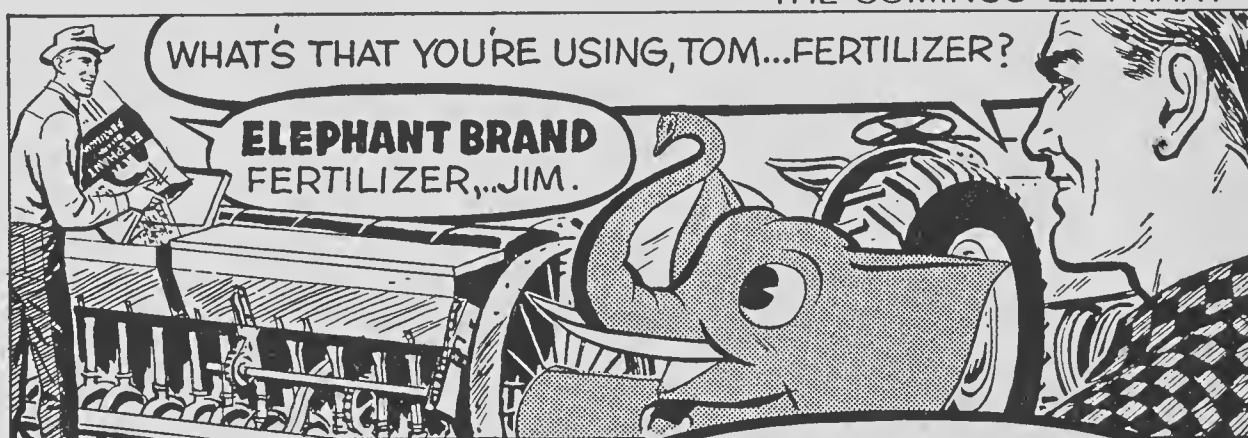


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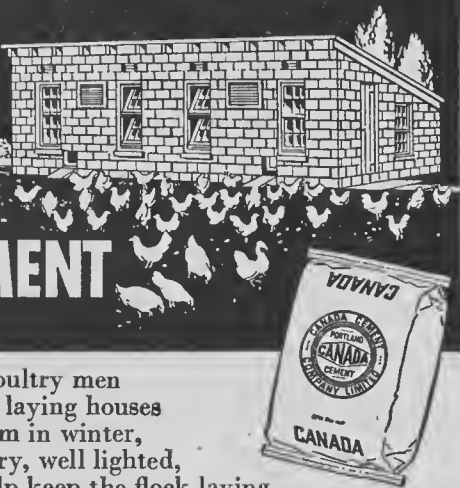
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with me . . . I've missed you like I would miss my heart if it were gone." But he didn't.

Presently the doors behind the wicket opened. Jerry took the mail out of the hatchery box. He gathered the mail in his arm and went out the door.

Kathy was right behind him. She said, "Jerry, I think if you speak to Lee again about that tree, he'll let you fell it."

"He's a big boy now," Jerry said. "If he changed his mind, let him come and tell me."

"But that isn't it," Kathy said. "He didn't say he would, but I know and—"

"He'll let us fell it," Jerry broke in, "just as soon as Ted gets back. He'll wish he'd let us cut it in the first place. Is that what you're doing? Trying to keep your boy friend out of trouble?"

Kathy looked at Jerry almost as if he had struck her. "You big, stubborn fool!" she said, and turned and walked away.

Jerry thought, just before she turned, that there were tears in her eyes but he couldn't be sure. He took a step in her direction, hesitated, said, "Kathy!" but she didn't stop. He walked back to the hatchery, deriving small satisfaction from the fact that he had undoubtedly hurt her, as he had meant to do.

BACK in the hatchery office, he read the papers and then he slit open the envelope from the regional office. He read the letter and then he read it again and panic came to replace the despair he had been feeling about Kathy.

The letter was from the regional supervisor. It said, "Dr. Charles Johnstone, chief of the division of game, fish, and hatcheries with offices in Chicago, will inspect your hatchery on Thursday."

Holy cow! Thursday was tomorrow! To have a big shot from the Chicago office when Ted was gone was so awesome that it was almost unbelievable. He could see the man inspecting—looking here and there and asking involved and technical questions. He could imagine Doctor Johnstone leaving in high dudgeon and writing a blasting report, appending to it the inadvisability of leaving a kid in charge of a government hatchery. And right now, Jerry thought dimly, Ted was contentedly fishing a Canadian stream. If he only knew!

Jerry started with the office, sweeping and cleaning and putting the files in order. He made everything as neat and as businesslike as possible. He brought the log up to date. Thank heaven he had mowed the lawn yesterday. That, at least, would be in good shape, unimpressed as Doctor Johnstone might be with their beautifully kept grass. He cleaned the feed room, defrosted the cold-storage plant, swept out the shop, washed the two trucks and inspected the raceway ponds and decided against scrubbing them. It was nearly five when he finished and went back to the office to make a list of things to do tomorrow.

He reasoned that Ted would want him to get Bub to help him so he called him and asked him to come in the morning. Bub and he could be

ready and waiting for the inspection in a few hours.

He went to sleep early, thought fleetingly of Kathy, and then put her back in a corner of his mind. Even his personal troubles with Kathy, serious as they were, could wait. Sometime during the night he woke. He listened for the noise that had awakened him. It sounded like rain. Then he identified it as the wind in the trees. Somewhere a window banged. Maybe, he thought sleepily, it would storm so badly that Doctor Johnstone wouldn't come.

WHEN he woke the next morning the wind was whipping the lake into whitecaps and the tops of the trees were swaying. Bub Caldwell arrived and they got to work. They were cleaning the troughs inside the hatchery—working fast, thinking that any minute Doctor Johnstone might drive in when Jerry heard it. Or rather he didn't hear it. The gurgling sound in the head trough had stopped. He and Bub both raised their heads and looked at each other, terror stricken.

They ran to the head trough and looked into it. The water level was dropping. Jerry looked into the other troughs. Already the fish were darting here and there in panic, looking for water.

"The pipeline!" Jerry yelled. "That fir must have fallen!"

Bub said, "Shall we pull the gates?"

Jerry hesitated, thinking hard. They had 20 minutes, maybe 30, before they'd lose the fish. If he tried to fix the pipeline and didn't make it, it would be too late to turn the fish loose. It was all or nothing. Jerry knew he was wasting valuable time standing there thinking, but he had to be right. The thought of Doctor Johnstone's coming crossed his mind and made his flesh crawl. The water in the troughs was gone and the fish were flopping and wriggling on the bottom.

As he stood there, Lee Manners and Kathy walked into the hatchery. Kathy's eyes opened wide as she missed the sound of the water, but Lee said, "If you want to fell that fir, it's all right. I thought it over."

Jerry said, biting off the words, "You thought too long, mister. It's already fallen. Look at this!" He motioned toward the troughs.

Lee Manners looked at the troughs. He said, "You'll have to let the fish out."

"We will not!" Jerry snapped. How much of his answer to Manners was sheer perverseness, and how much of



"They're not very large, but the price will probably take my husband's appetite away."

it was the result of his own decision, he couldn't say. But he knew now what he was going to do. He turned to Bub. "Run to the intake; shut the water off. By the time you get there, I'll be at the break. Keep it shut off for ten minutes by your watch and then turn it on. If I don't have it fixed by then it'll be too late anyway."

JERRY ran to the shop. He picked up a big waterproof tarpaulin, a coil of old telephone wire and some wire cutters. As he gathered the things he prayed that the tree, in falling, had jumped far enough so that it cleared the line after breaking the pipe. If it were lying directly across the line he'd have to buck it and hand log it out of there with logging jacks. There wasn't time for that. He realized as he ran up the pipeline, that he was taking an awful chance.

The break seemed miles away. Jerry ran until he was sobbing for breath. The tarpaulin was hard to carry and the wire kept catching on the brush. It seemed hours since the water had gone off. He came upon the break suddenly. He had been running so hard; it seemed he would never reach it, but suddenly he was wading through water and in front of him the pipeline was crushed and water was gushing out of it. The sight of it let him know that he had a chance. The tree had hit the pipeline and had slid downhill enough so that it cleared the break.

The water was still coming from the pipe. For a moment he thought, despairingly, that Bub had hurried so much that he had fallen—had sprained an ankle or broken a leg. He tried not to think of time, and presently the flow of water slowed, was reduced to a trickle, and finally died.

Jerry looked at his watch so he'd know when ten minutes was up. He pulled out the broken staves, cut the wire, slid the canvas under the break and started wrapping it around. When he had used all the tarpaulin he went to each end of the break and wrapped telephone wire around the canvas, pulling it as tightly as he could and then clamping and twisting it with the wire cutters. When he had finished, the tarpaulin, rolled like a carpet in a store, was securely wired in place at both ends. Jerry was thankful that it was a low-pressure pipeline, but even at that, it might not hold.

He was soaked to the skin with sweat and water and his heart pounded with exertion and apprehension. He looked at his watch and as he looked, he heard air rushing through the pipe as the water pushed it along. He saw the tarpaulin fill. Air and water squirted out the ends and Jerry's heart sank. Water dripped from the bottom of the patch and Jerry watched it and waited for the full weight of the water to burst the mending job as easily as if it were a paper bag. The canvas bulged and then the air hissed no longer. The leakage was constant. Jerry licked his lips and waited. The bulge in the tarpaulin remained the same. It was going to hold. He thought of the hatchery, with the head trough rilling and water again rushing into the troughs and raceway pools. He could see the fish coming to life and swimming toward the water as it flowed in. And then he remembered Doctor Johnstone.

"Holy cow!" he said, out loud. That was all he needed—to have Doctor Johnstone arrive, find nobody around the hatchery, see the troughs without water and the fish dying. He started running down the pipeline, the faint hope that the man hadn't yet arrived pushing him along. But when he broke out onto the road he saw that he was too late. An official car stood in front of the hatchery.

HE walked into the office and saw a tall, gaunt man wearing spectacles standing beside a filing cabinet. Kathy was sitting at the desk. As Jerry walked in, he suddenly realized

how he looked — dripping wet from water and perspiration, mud clear up to his knees. "I guess you're Doctor Johnstone," he said, with resignation.

The man nodded. "I see you got water to the fish. You took a tremendous chance."

"I know it," Jerry said. He could see the report now. Chance taking and hairbrained schemes like fixing a pipeline with a piece of canvas would be received by Doctor Johnstone with extreme disfavor. "It was the only thing to do."

"You could have turned the fish loose."

"I thought of that—but I hated to lose them."

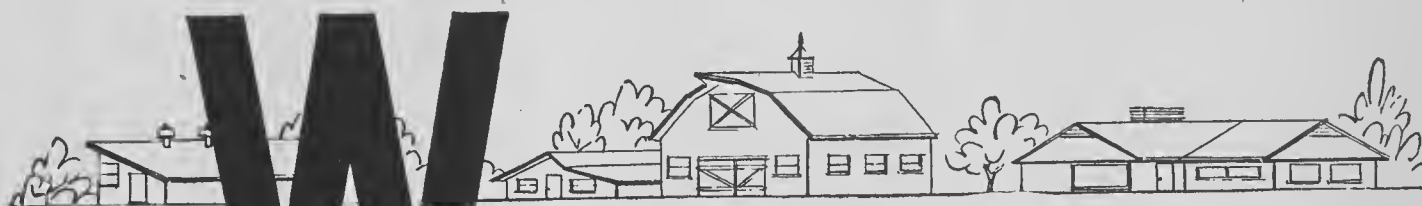
"Why?"

Jerry frowned as he looked at the man. "Why?" he said. "Because we sweat to get the eggs and we babied them and fed them and did all the things we had to do to raise them to fingerlings. I wasn't about to turn them loose." It was a poor answer, he knew.

But Doctor Johnstone grinned. "That's what she said." He nodded toward Kathy. "You must have hired her for a press agent."

Jerry's heart, which was nearly worn out from considerable leaping

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Canadian Sales up 40% in Record Year for Sun Life

New insurance during 1956 largest amount ever sold by a Canadian company in any year; policy dividends again increased; \$7 billion insurance in force.

New life insurance sold by the Sun Life Assurance Company of Canada in 1956 amounted to \$854 million, an increase of \$93 million over the previous year and once again the greatest amount of life insurance ever sold by any Canadian company in one year. In Canada, a 40% increase was reported. Sun Life's 86th Annual Report to Policyholders, just released, also discloses that life insurance in force has now passed the \$7 billion mark, an all-time record. The Company is again adopting new and increased dividend scales which will further reduce the cost of insurance to policyholders. As a result of these increased scales, Sun Life will pay out \$31 million in dividends to policyholders during 1957, or \$2,700,000 more than in the previous year, and more than twice the amount paid out only nine years ago. During 1956, the Company paid a total of \$137 million in benefits to policyholders, largest amount ever distributed by the Sun Life in any year. Living policyholders and annuitants received \$94 million of this amount. Benefit payments since 1871, when the first Sun Life policy was issued, have now exceeded \$3,140 million.

George W. Bourke, Sun Life President, in reviewing Company results for the 12-month period, stated that full advantage had been taken of favourable conditions for a record sale of life insurance by the Sun Life. By mobilizing the savings of millions of policyholders, life insurance is playing a vital part in providing the funds needed for the tremendous capital expansion that is taking place today.

GROUP BUSINESS NOW OVER \$2½ BILLION

Included in new business during the year was \$259 million of group insurance, or 30% of the total, bringing group insurance in force to more than \$2½ billion. Sun Life's worldwide total of insurance in force now has

reached \$7,030,000,000, an all-time high. Annuities payable currently and in future under group pension plans and individual contracts totalled \$162 million per annum at the end of 1956. Life insurance and annuities combined, are the equivalent of \$9,175,000,000 of life insurance. The division of this figure among the major territories in which the Company operates is: Canada, 49%; United States, 36%; Great Britain and other Commonwealth countries, 13%; elsewhere, 2%.

\$89 MILLION IN NEW MORTGAGE LOANS

An increase in assets of \$60 million took place in 1956, and Sun Life assets now stand at slightly over \$2 billion. "During the year 1956, even though tighter credit conditions existed in Canada and the United States, the Sun Life advanced \$89 million in new mortgage loans throughout the two countries," Mr. Bourke said. "Our mortgage loan account now stands at \$460 million."

Sun Life's Report revealed that the success of the year's investment operations was reflected in the gross interest rate earned on the Company's assets, which increased from 4.17% in 1955 to 4.32% in 1956.

CONTINUED GROWTH

Mr. Bourke concluded by saying that with the prospect of continued expansion, the volume of new life insurance will continue to grow. "In the highly competitive atmosphere in which we operate," he declared, "the Sun Life will continue to be responsive to public needs and anxious at all times to improve the service we have to offer."

A copy of Sun Life's complete 1956 Annual Report, including the President's review of the year, is being sent to each policyholder. There are 100 Sun Life Branch Offices to serve you throughout North America.

that morning, leaped again. He looked at Kathy as if she had suddenly sprouted a halo, but he couldn't help asking, "What happened to Lee?"

"You mean the young man from the timber company?" Doctor Johnstone said. "He took off with a red face after your young lady dug your request out of the files and showed me the notation you had made showing that he'd refused permission to fell that leaning fir snag. The young man was busy telling me that he'd never received a request." The man smiled. "She must have some Irish blood in her veins somewhere."

Two hours later Doctor Johnstone was gone. The water gurgled in the head trough. Jerry's spirits gurgled as merrily as the water. A letter of commendation was going to the regional office. The episode of the broken pipeline and the way Jerry solved it would be written into the report and the letter.

Jerry heard someone come into the hatchery. He turned around. It was Kathy. She had a lunch bucket in her hand. She said, "Let's eat our lunch down by Falls Creek, Jerry."

Jerry grinned at her and couldn't help saying, "I thought you'd be eating lunch with Lee. All we got is fish."

Kathy smiled at him. She came to him and took his hand and said, "Come on. I've got some fish to fry." V

He Invented An Implement

by M. K. ZIEMAN

THE experts told Emerson Summach that it couldn't be done—but he did it! For Summach, a farmer in the Asquith district of Saskatchewan in Canada, decided that a "coiled" land packer would do a more efficient job than the conventional land packers he had previously used in compacting soil on his farm. He had found that moist soil clogged up the spokes and wheels which were the basis of most such land packers: also, that the straight up and down slope tracks they left in the soil provided channels which caused too great run-off of much-needed moisture during heavy rains.

The idea of using a coiled land packer came to him as he watched his young son at play. The youngster was

rolling a coil spring from an old automobile across the garden soil. As Summach looked at the diagonal tracks left by the coil he compared them with the straight up and down tracks left by the conventional land packer, and he decided the diagonal tracks would cut down the heavy run-off of moisture. He also realized that a packer like a coil would require no set of wheels with spokes rotating round a central axle—consequently there would be no clogging up with moist soil.

Emerson Summach suggested his idea to several of the big implement companies, but officials of these firms pointed out that there was no machine in existence to turn out the coils; therefore the project was uneconomical. Summach, who had gained some knowledge of machine work during the Second World War while working in Regina, knew what he wanted and decided to build a coil-making machine himself. He succeeded in designing a roller for steel coil.

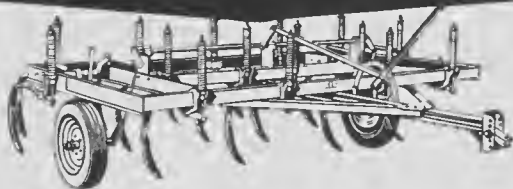
But then he ran into difficulty: the machine would roll the steel coil, but it took considerable experimenting and testing to find the right type of steel to use; also, the form of welding to employ so that the steel bars would go through the machine and not break at the weld while being coiled. Eventually, all these bugs were ironed out and Summach started turning out coiled land packers in his own plant. To date, the firm has turned out about 4,000 units and used 400 tons of steel. The firm sold the new packers as fast as they could be produced to farmers who came to the plant and took them away, without waiting to have them painted.

The new type of coiled packer was a success right from the start. It not only didn't clog up, for there's no moving parts inside the coil to clog; it worked even on the heavy gumbo of certain types of prairie country. Nor did it pulverize the soil unduly as the conventional packer had tended to do.

Now, the flexed coil land packer is also patented and manufactured in the United States. Patents have also been applied for in Germany, Britain, Argentina, Brazil and Australia.

So what started with child's play has become a source of many men's work and Emerson Summach has succeeded in doing what the experts said was not practicable. V

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Yes, there are 15, the GLENCOE exclusive 10" spacing gives you more sweeps . . . and when it comes to cultivating with a sub-tiller plow, these extra sweeps result in a more complete weed kill than you could possibly get with any 12 inch spaced plow. When deep tilling, the 10" Glencoe spacing results in more complete breakage of hardpan and lighter draft.

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Emerson Summach's coil land packer is only one example of inventiveness on the part of farmers, with respect to the efficiency of farm implements.

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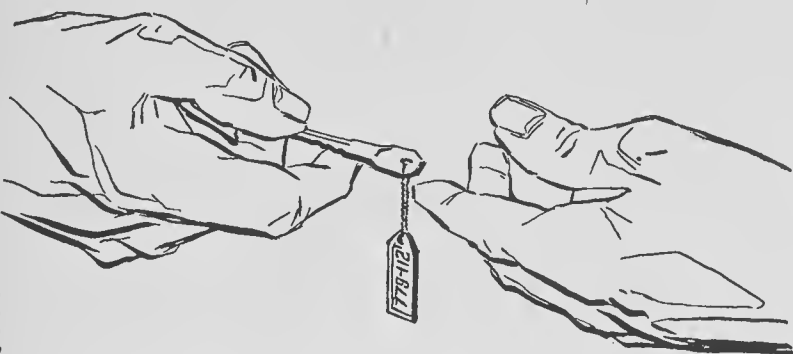
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Where Jerseys Reign

This fertile and hilly land bordering on the Northumberland Strait in Nova Scotia has fine herds to prove it



[Guide photo]

This view of Nova Scotian countryside also shows a good view of most of J. Arthur Malcolm's purebred Jersey herd, the nearby matrons busily at work.

ACROSS the Northumberland Strait from Prince Edward Island, in Nova Scotia, you'll find a stronghold of the Jersey breed. Dozens of roadside fields are grazed by small herds of these Channel Island cattle. Just about all seem to have the type and breeding that could make them purebreds and many of them are. The smallest dairy cow has found a niche on this fertile hilly land,—where cream goes to the creamery and skim milk goes to the hogs on the small-acreage farms—, that it has no notion of relinquishing.

So it is fitting that this year, the president of the Canadian Jersey Cattle Club should come from that good Jersey area. J. Arthur Malcolm of Tatamagouche is the man; and his farm, if not typical of the many Jersey farms there, could certainly be called a model.

On 52 acres of fertile, but steeply rolling land, he maintains 20 cows in a herd of 40 animals. That picture postcard farm is a model of soil and field management. Four acres of it has been down to permanent pasture for 25 years, and has been fertilized every year during that time. It still produces too much grass to make him want to plow it down.

In June, Mr. Malcolm pointed out a four-acre field that produced hay in 1955, and was being grazed last year. The 13 cows and a few heifers had grazed alternately on the small field during the daytime, and on a two-acre pasture at night, for three weeks, and the field would have given a good cut of hay after it.

Orchard grass, red clover, ladino, alfalfa, and timothy seemed to be leaping from the ground. One reason, of course, is manure. The stock on the farm produce enough manure to just about cover the farm each year. From 14 acres of pasture, and 20 acres of hay, Mr. Malcolm produces enough roughage for the herd. From 18 acres of grain, which is forced with commercial fertilizer, he grows much of the grain the herd requires.

His small acreage doesn't justify a full line of equipment, so he works with his neighbor, Hector Semple, and they maintain haying and threshing equipment between them. ✓

Conservation on Poor Gravelly Soils

THE field in the picture below lies in the Pondera Soil Conservation District, Pondera County, Montana. Soils there are influenced by outwash materials from nearby mountains, and generally underlain by coarse gravel at varying depths. In some cases, this gravel lies so close to the surface that it seriously limits moisture storage and crop growth.

During the thirties strip-cropping was practically unknown in this area, although high winds are almost continuous in the spring. Because of the coarseness of this land, only about an inch of topsoil was lost through blowing, but many crops were destroyed when seedlings were cut off and killed by moving sand and soil particles.

With the organization of Soil Conservation Districts, strip-cropping and stubble-mulch-fallow practices became widespread throughout this area in the 1940's, resulting in stabilized production and surprisingly good yields for soil of this texture. Dark, hard northern spring wheat and Compana barley are the main crops at the present time, with wheat yields averaging 15 to 20 bushels to the acre, and barley 25 to 30 bushels to the acre. ✓



[Guide photo]

Strip-cropping and trash cover keep this coarse, gravelly soil in shape.

Science And the Farm

The kidney worm is a swine parasite that costs livestock producers in the United States about \$72 million a year. Scientists who attempt to devise methods of controlling insect pests, must first study their life histories; and for a long time have wondered what happens to the kidney worm while it spends the early stages of its life history in the soil. Now they are wondering if the kidney worm doesn't hide in the bodies of earthworms. Reason: Scientists have now successfully infected pigs with kidney worm in the laboratory by feeding them earthworms infected with the larvae of the parasite. They still have to secure similar findings from tests made under actual field conditions, and these are being conducted by the U.S. Department of Agriculture at its experiment station at Beltsville, Maryland. The kidney worm attacks the liver, loin muscles, and sometimes the blood vessels, kidneys and liver. At present there is no known medical cure or treatment. ✓

Don't be afraid of work. All of us have heard it said that "hard work never hurt anyone," and now comes a professor of medicine at the University of Birmingham, England, to tell us not only that hard work can be good for us, but that rest may be damaging. He said that none of the known effects of work can harm healthy tissues. Instead, all of its effects are good, to the extent that they develop and extend the range of adaptation of the various parts of the human body. Rest may damage blood circulation and affect blood vessels and kidneys. Muscles may lose their tone, ligaments may stretch, and joints get out of position from long rest in bed. Likewise, appetite will fail and constipation is common. Hard work that has no avoidable hazard, does not interfere with sleep or nutrition, and bears remuneration sufficient to remove worry, is harmless, so go to it. ✓

Wireworms sometimes do millions of dollars worth of damage on irrigated soils, especially to crops like beans, potatoes, sugar beets, onions, lettuce and other row crops. The wireworms feed on seeds, seedlings, tubers, bulbs and roots. DDT, applied as a dust or spray, and followed by disking and plowing to mix the products with the soil as a contact poison, remains in the soil for four years or more. Other chemicals, D-D mixture and ethylene dibromide, work well and have the added advantage of being fumigants, which diffuse through the soil, killing all wireworms as deep as, or deeper than, they are applied. ✓

Wanted: A breed of chickens which will produce more eggs than most meat breeds lay, will make a three-pound broiler in ten weeks, will feather out quickly, dress more easily, because it is light in color! Some chicken! The USDA Research Center at Beltsville, Maryland, has found it by mating the new white Silver breed, with New Hampshire stock. The best characteristics of these two breeds are reproduced only in the first generation it is said. The new chicken has been named the Beltsville broiler. ✓

The aleurone layer, one of the outer layers of a grain of wheat, and therefore a part of the bran, is less than seven per cent of the weight of the grain. Nevertheless, it contains 31 per cent of the thiamin (B-1), 84 per cent of the nicotinic acid, 39 per cent of the pantothenic acid and 37 per cent of the riboflavin (B-2). British researchers could not discover that the B vitamins and minerals in the aleurone layer play any decisive role in the development of the embryo plant contained in the seed. ✓

Meat tenderness is inherited in animals, according to scientists at the USDA Agricultural Research Center, Beltsville, Maryland. Tenderness, therefore, can be passed on to succeeding generations through selective breeding. Both rabbits and beef cattle are now under test for heritability of tenderness. Workers at the Beltsville Center are also attempting to develop a quick, reliable test for meat tenderness that can be used on live animals. ✓

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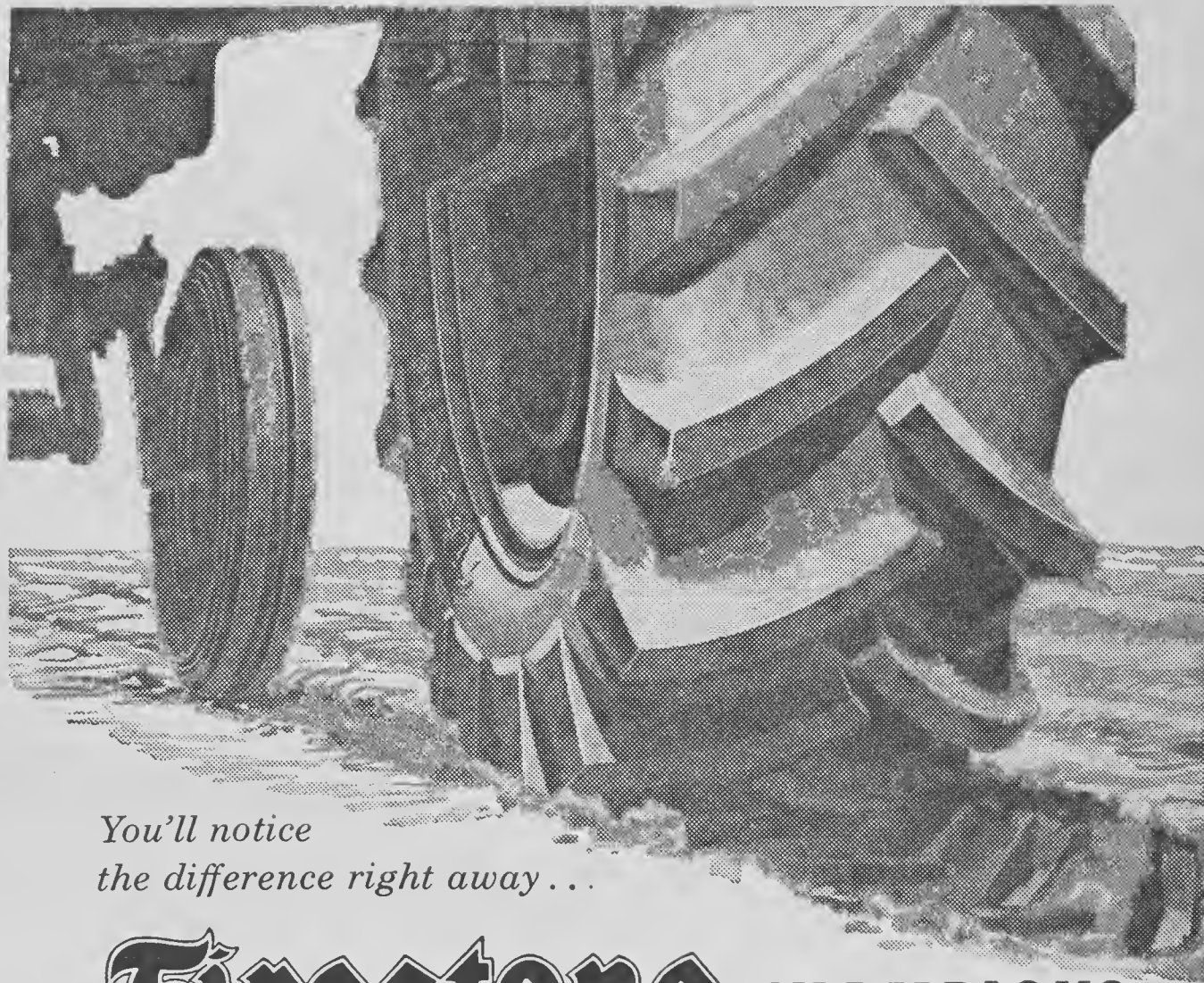
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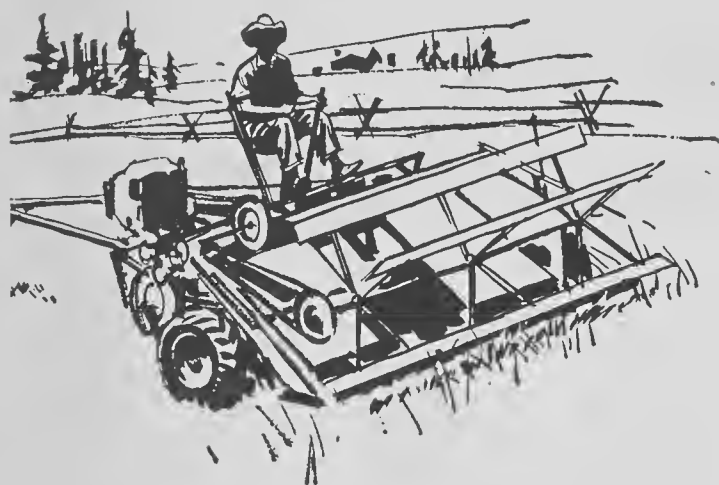
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Have You Heard These?

by DON J. MacLEOD

Alfalfa, up to now has only been enjoyed by animals, but it is reported to be higher in vitamin C than grapefruit, oranges, or any of the green-leaf type of vegetables. Humans will now undoubtedly turn to alfalfa as a tonic. It can be cooked like spinach. It is also rich in protein, carotene and chlorophyll. (Can be eaten out of either a trough, or a manger, too.—ed.)

You may be able to put a little extra weight on your pigs for very little cost, by adding cobalt to hog rations. An experiment, over a 90-day period, at the North Dakota Experiment Station produced nine to 18 pounds more weight for each pig. The cobalt only cost about one-half cent a head. It was found that the result was obtained, whether vegetable or animal protein was fed. In the test referred to, a standard corn-protein-mineral ration was used.

Isolation Station For Potato Varieties

BETTER varieties are in prospect for prairie potato growers, because of tests now under way at nine research centers in Alberta, Saskatchewan, and Manitoba. It's all a part of the national potato improvement plan instituted across Canada by the Horticultural Division, Central Experimental Farm, Ottawa.

To ensure a basic supply of uniform, disease-free testing stock, a potato isolation station was established last year at the Experimental Station, Scott, Saskatchewan. In future, seed used in potato trials in the three prairie provinces will come from this common source. This eliminates a variety of local factors which might affect stocks of test seed, and enables research institutions to start their trials from the same basic foundation.

One reason Scott was chosen as the initial producer is the fact that the nearest commercial potato enterprise (most dangerous source of infection) lies over 50 miles to the north. This station also has a good supply of irrigation water, which, ensures that a sudden dry spell won't interfere with plant growth. Last year, the normal rainfall had to be assisted with six inches of additional water. Scott also has ample greenhouse space for indexing seed stocks during the winter.

When it was decided that Scott was the best place at which to conduct this work, a 23-acre block of land was set aside for the purpose. This was divided into six plots of three acres each, all of which were protected from other crops by shelterbelts, or grassed roadways.

AT the present time, over 100 potato varieties are being tested, most of the stock originally coming from the Experimental Farm at Fredericton, New Brunswick. This is planted under the tuber-unit plan, in which plants developing from each seed potato are separated from the others in the row, by blank spaces:

For instance, if a seed tuber was cut into four pieces, these would be planted together in one group. Any disease or irregularity showing in one, or all, of the resulting four plants would mean that that plant, or group, would have to be weeded out. None of the potatoes they produced could be used for seed.

When the seed crop is harvested in the fall, it is stored at the station, and issued to the various testing agencies just before seeding time the following spring. This not only ensures that seed to be tested will be uniform in type, but in quality also,

because all will have been stored under the same conditions. During the winter, test samples of the stored seed are taken, and each sample is planted in a five-inch earthenware pot, and grown in the greenhouse so as to detect any virus diseases that didn't show up in the outdoor plots. On dull days, tremendous banks of artificial lights are used to keep the plants coming along.

Greenhouse testing of seed stocks doesn't start until the middle of January, because the tubers remain dormant during the fall and early winter. Once testing begins, it lasts

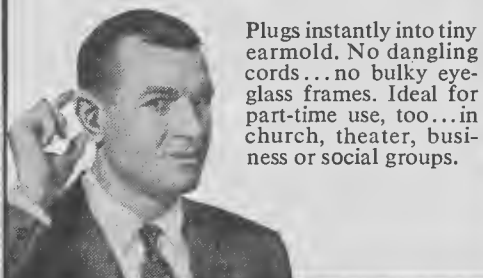
until about the middle of April. It takes six weeks from planting a potato eye in a plot until the seedling reaches a height of six inches, when any diseases that are present will show. Greenhouse facilities at Scott can handle 2,500 pots at one time, which means that about 5,000 tubers can be tested each winter.

Given this basic disease-free stock to work with, researchers at the various stations scattered over the prairies can begin the long job of testing for an ideal potato variety to suit local conditions.

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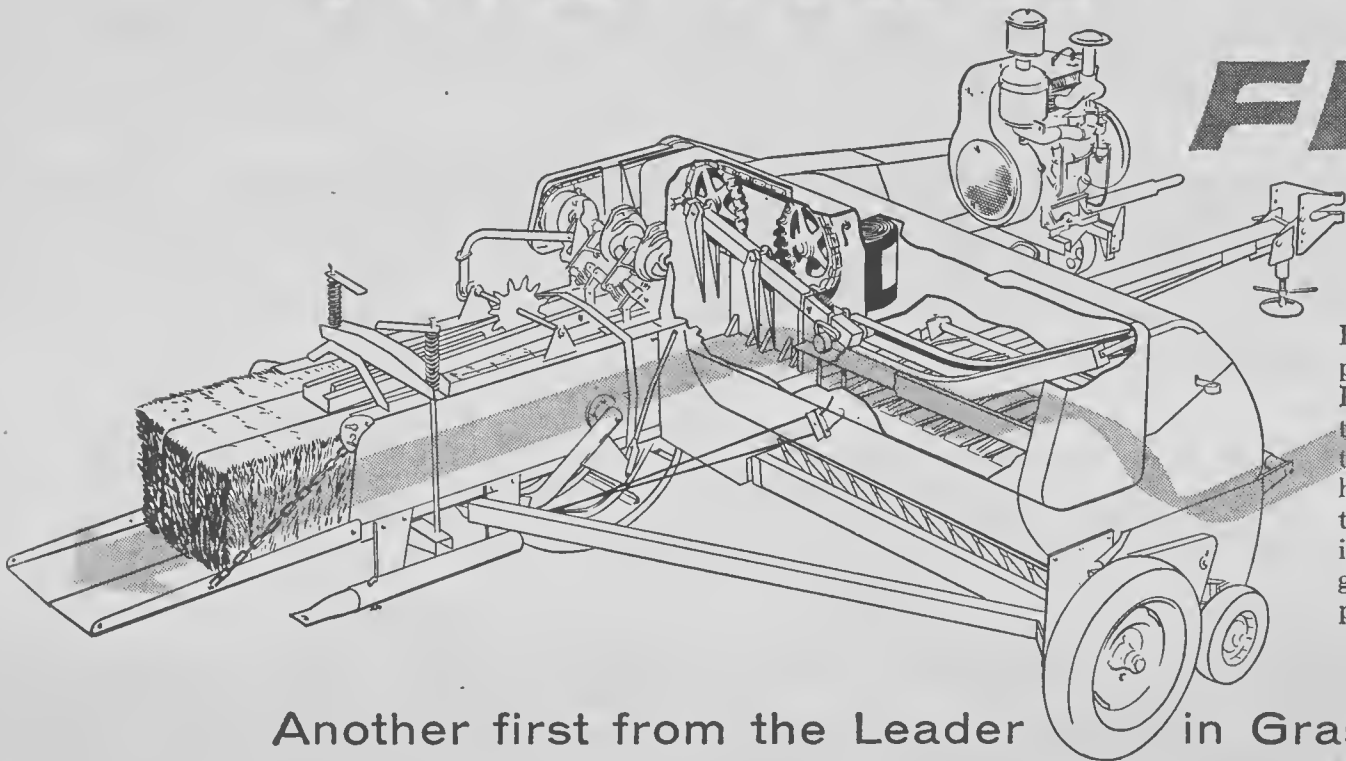
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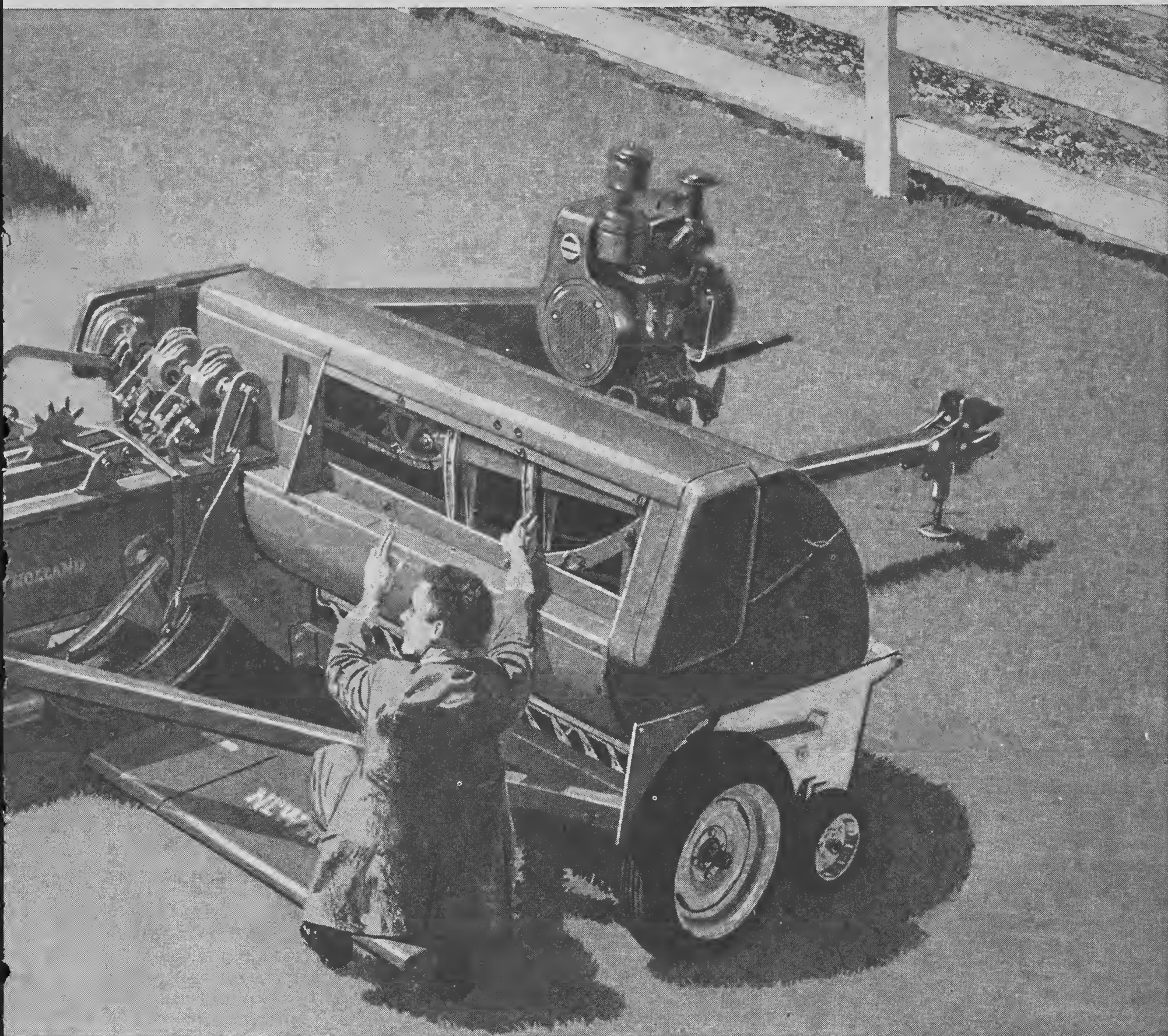
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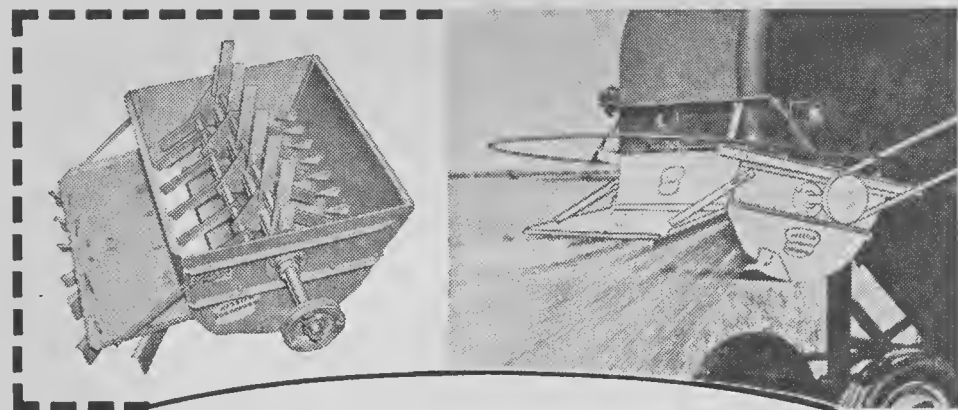
The HAYLINER 68 handles your hay less because it has fewer moving parts. It puts the most feed value into every bale.

And look at the way the bale is built—square, cleanly sliced. Easy to stack. Easy to feed out.

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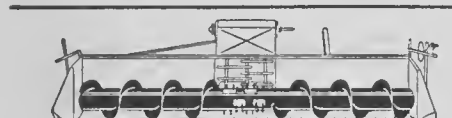
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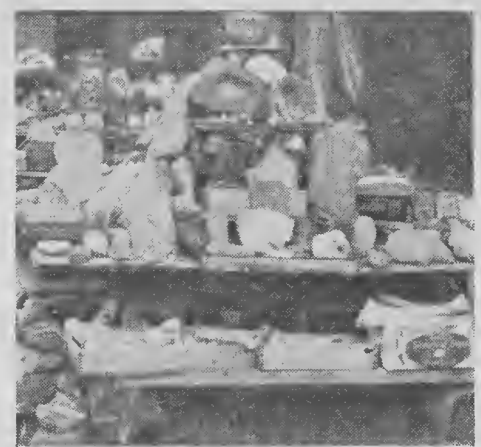


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Rocks Are His Interesting Hobby



[Guide photo]
One group of Robert Cochrane's collection of ancient rocks, bones, fossils.

MANY farmers collect rock piles on their land. As a rule, this is no labor of love, but a necessity. It's one of the penalties that goes with farming stony ground. There are exceptions to every rule, however, and one such exception is Robert Cochrane, who farms at Kleskun Hill, east of Grande Prairie, Alberta. Bob collects rocks from near and far and carts them home, just because he has a deep and abiding love for things geological, and the stories they tell of the earth's early history. Several of his buildings which used to hold grain or farm machinery, are now filled with rocks, fossils, and the bones of pre-historic monsters—many more decorate the grounds around his home.

Born in Ontario, Bob Cochrane lived in Winnipeg for a few years, and moved into the Peace River country in 1910, where he has farmed ever since. He has gathered fossils and stones all the way from nearby Kleskun Hill to Arizona, and Mexico. His collection has aroused the interest of the Smithsonian Institute in Washington, D.C., and his flair for history has made him a natural choice for membership in various pioneer groups, and the National Historic Sites and Monuments Board.

Many of the stones Bob collects are in the semi-precious category. To bring out the full beauty of these stones, he journeyed to Texas, where he took a course in gem cutting. While in the States he gathered a quantity of Arizona ironwood, and last winter, made two violins from it. He found the work absorbing, although the results of his handicraft proved disappointing.

One of Cochrane's favorite topics is the great contribution made to our present society by the giant reptiles of long ago. The doings of early mankind also receive a good deal of his attention. In the nearby Rockies, he discovered an old trail which he believes was worn by the feet of Mongolian tribes forced to leave their homeland because of drought and cross the "land bridge," said to have once spanned Bering Strait. These people are supposed to be the forebears of our Indians and Eskimos.

But this interest in mankind isn't confined to the dawn of civilization. Bob takes an active interest in the people living around him, and has a host of friends throughout the north-land.

In spite of the hours devoted to his hobbies, Cochrane has found time to become an outstanding farmer. In

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1955, his sample of Saunders wheat won him the world wheat championship at the Royal Agricultural Winter Fair, Toronto. Specializing in producing timothy seed for many years, Bob was known, by 1932, as "Timothy King of the Empire," because he supplied seed houses with more timothy than any other individual in the Commonwealth. V

Steers Fed The Year Round

WESTERN-SIZE beef businesses can be found in eastern Canada, too. Jack Ross, at Hariston, Ontario, has 700 acres now, and feeds off over 200 head of cattle a year. Formerly he was a dairy farmer.

He foresaw a tightening dairy industry when the sale of margarine was legalized in Canada a few years ago, and that's when he turned to beef. Since then he has been buying up land in the wake of an exodus from local farms as their hard-pressed occupants left for steady pay and shorter hours in Ontario's industrial boom.

The extra acreage provided the grass he needed for a sizable beef business; and half of his land is down to permanent pasture, much of it in high-yielding improved sod.

His other requirement is grain, and the basis of his grain program is the 50 acres of corn he grows. He first tried eight acres of the yellow grain six years ago, and now calls Ontario another corn belt. Roughly 50 miles north of Stratford, he is far removed from the Chatham corn area, but he has harvested good crops in five out of six years. It gave him cheaper feed than oats or barley ever did. The sixth crop went into the silo, so there was no actual loss.

Mr. Ross beat the high cost of corn-growing and harvesting equipment by starting with used machinery. He bought a tractor-mounted rotary hoe, corn scuffler, planter, and picker, all for \$900. They lasted four years.

In the face of dropping beef prices, corn has been the salvation of his operation. In 1955, his best year yield-wise, he harvested 57.7 bushels per acre of dried shelled corn.

Mr. Ross stays with short-keep cattle, feeding off three lots a year. He finds pasture feeding the most profitable way to finish them. To cash in on the system, he has laid out four 20-acre pasture fields around the barn. Cattle grazing there are fed a corn and barley ration for 90 days.

Steers run loose in winter too, when they are fed and sheltered in an old 40 by 60 ft. stable, empty of stanchions and fitted with feed mangers around the walls. He can throw hay into them from the barn above, so, other than for grinding grain, chore time is limited to a few minutes daily.

In April, while one lot of cattle is being finished in the home barn, another is being roughed through at the old barn described above. These are a cheaper run of cattle, for feeding off grass in spring.

He has kept his investment down by hiring his manure loading, and bale hauling done. On the other hand, he owns a baler and makes it pay its way by doing some custom work. V



"We plow and drill 1600 acres in 8 days with these two CAT* DIESEL TRACTORS"

says Louis Lagler, Warner, Alberta

When the soil and weather are just right for drilling spring wheat, Louis Lagler puts his two Cat Diesel Tractors in the field and runs them from sun up to sun down. What a job they do! His D6 pulls 32' of oneway to prepare better than 200 acres per day. And right behind the D6, while the ground is fresh and mellow, comes his Caterpillar Diesel D4 Tractor traveling in 5th gear with 24' of drills.

With big production equipment like this, Mr. Lagler is able to handle his farm with a minimum of help, get his crops in at exactly the right time, save on fuel costs and long-term tractor investment, and really enjoy farming.

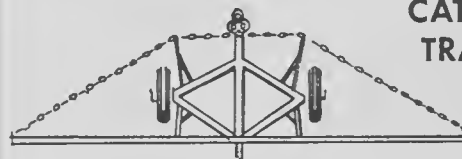
After spring work is over, he pulls 24' of cultivators behind his D4 and 24' of deep chisels with his D6 in summer fallow. And in slack seasons there's always plenty of bulldozing work to keep his D6 busy and earning: building dug-outs, smoothing land, filling in low spots.

It's no wonder Louis Lagler says, "I'm well satisfied with Cat track-type Tractors. My D6 has successfully worked more than 3000 meter hours. I wouldn't have any other crawler!"

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The Winter We Fed the Birds

by MARY-JO BURLS

MEMORIES of my childhood winters include so many things—sliding down the river banks on a home-made toboggan, drinking hot cocoa in the kitchen after an afternoon's skating on the open air rink, fox and goose patterns in a fresh fall of snow, and snow forts built of solid blocks cut carefully with half frozen hands! But the winter that stands out as the most memorable of all is the one when I was unable to enjoy any of those things. Confined to the house with a broken leg, I could only hobble to the window and miserably stand and watch the other children play.

In vain my mother tried to interest me in some new hobby. I had read or colored almost every book we owned, and it was a happy accident which led to the pastime which proved so enjoyable to the whole family.

Garbage disposal units were unheard of at that time. Anything which would not gurgle noisily down the drain was dumped into a bucket and later emptied outside. While I watched my brother empty it one morning, I noticed three little brown birds waiting impatiently for him to throw down the garbage and be gone. They bounced eagerly up and down on a branch nearby, and I burst into laughter as I imagined them arguing over who was to have the choicest morsel. Mother came running to see the cause of my mirth, and ten minutes later she was out at the caragana at the kitchen window. A few minutes later, a rather lopsided board reposed between the branches, and Mother was back for a crust of bread and a few pieces of fat to place on it.

I watched for two days and was becoming bored and discouraged. An occasional sparrow flew in and grabbed a bite to eat, but he was gone again quickly. But gradually word of the Bird Cafeteria spread around and our clientele increased rapidly.

Within a week, our feeding station was a constantly changing picture, as interesting as television. With the first daylight, drab little sparrows were clustering in the nearby bushes, excitedly guessing as to that day's menu. Chickadees, tidy in their white vests and checked coats, and the little brown birds which we called snowbirds for want of a better name, joined them, and waited for one of us to bring out the table scraps and an occasional chunk of fat, which we begged from the butcher.

They, along with a pert little red-headed woodpecker, who had been too foolish, or too brave, to head south, were our steady customers until the jays arrived. One came on an afternoon of the second week. Big and bold, he perched on the board and preened his beautiful blue feathers before making his speech.

"I'm here," he shrieked raucously to all within listening distance. "From now on you can have what I leave." And they did. Next morning he returned with a companion and by the end of the week there were five of them scolding and quarrelling among themselves, but always uniting to drive the others away, until they had

eaten their fill. As arrogant as feudal lords, they demanded, and received, the courtesies due them because of their brilliant plumage and larger size. But even their color was to be outshone.

When the beautiful scarlet bird with the crested head first arrived, I hobbled quickly to the bookcase for the bird book which Mother had purchased for me. There was only one picture and description which matched it—the cardinal. We could hardly believe it. Cardinals weren't often seen in our part of the country, even in summer, and for one to brave a Manitoba winter was almost unthinkable. Friends who had not seen it were skeptical, but after we received confirmation from the writer of a nature column in a large daily paper, they were slowly convinced. Every day I watched for it to shyly fly in for lunch; and after it disappeared for good we spent many moments wondering as to its whereabouts.

We were all surprised at the variety of birds which came, and amused by some of the individual ones. One shivery little robin seemed to be always trying to pull his grey topcoat tighter across his rusty chest. Two blackbirds, who must have been renegades from the summer band, consistently ignored the food on the board and stole every bite they ate out of the mouths of the others. Our bird book became well-worn with the constant search to learn the correct names for our visitors, and we became the local authorities on native birds.

My interest in our feeding station did not disappear as my leg healed. As soon as I was able to walk well enough, I took over the task of putting out food and was rewarded by little "cheeps" of recognition from some of the tamer birds.

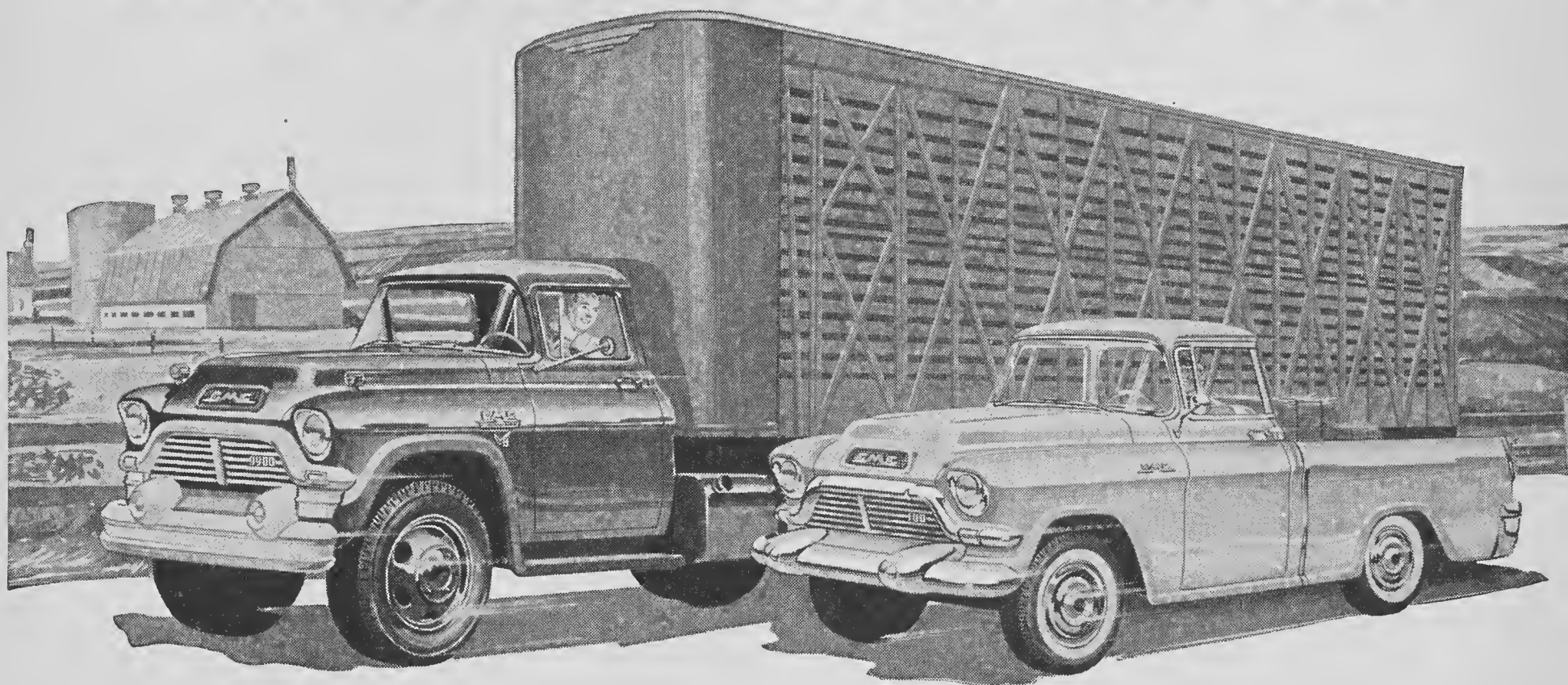
As spring came and they were able to find their own food, one by one they deserted us. But we did not forget them. Our feeding program had taught us a lesson in kindness, which carried all through the year. We did not dare shoot a bird with a sling-shot, or rob or destroy a nest, for fear we might be harming one of our winter friends. And the question of the year was whether the robin nesting in the maple overhanging the porch was our shivery friend, or a different one. We never could decide.

Now I have set up a feeding station for my own children to watch. So far our guests consist of three magpies, but even their antics amuse the children and I feel sure that business will improve and provide enjoyment for all of us.



"I'm afraid there will be a slight delay in preparing your order of chicken."

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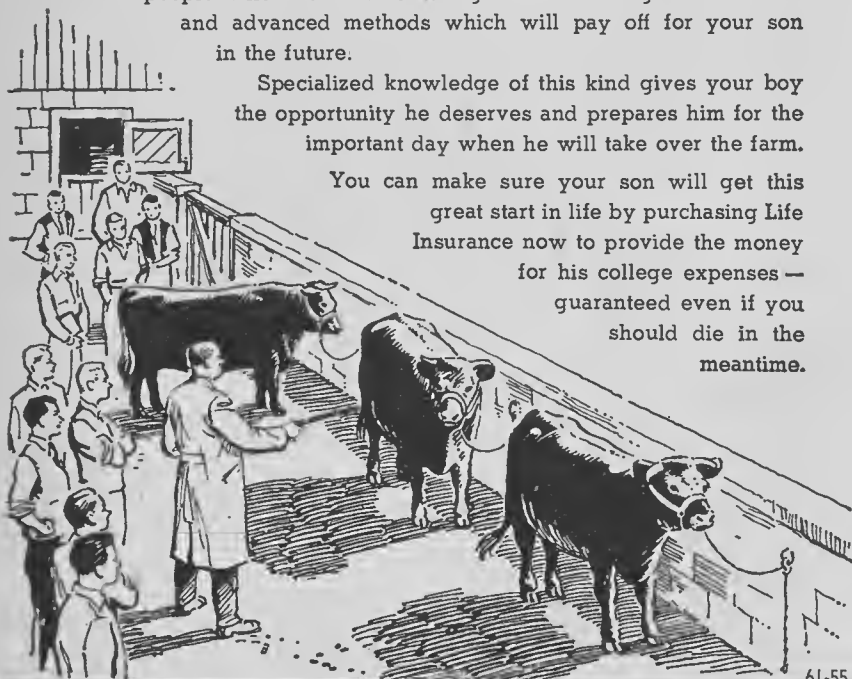
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WILL YOUR BOY BE A SUCCESSFUL FARMER?

In the farming world higher education is becoming a must for young people who are ambitious. Agricultural colleges teach new and advanced methods which will pay off for your son in the future.

Specialized knowledge of this kind gives your boy the opportunity he deserves and prepares him for the important day when he will take over the farm.

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Grass and Hay For a Beef Farm

Rolling land carrying Shorthorn cattle, tame grass, a bunker silo and loose housing solved the problem on this farm



[Guide photo

Shelly Anderson saves time and money by using loose housing, grass silage, and trying for high yields, in managing a 100-head purebred Shorthorn herd.

GROW big crops of grass and clover for a high-protein, low-cost feed. Store them as grass silage, either uncut and in open stack silos, or as cut silage in concrete bunker silos, or as dry hay, baled. Let a herd of beef cattle convert the grass into money; and run every animal, winter and summer, in loose-housing barns where they require very little work.

That is Shelly Anderson's secret of beef production today. It has taken a few years to develop the system, and he comments that any such innovation is bound to turn out better or worse than you expect. He says now that his program has turned out far beyond his highest hopes for it.

Mr. Anderson runs a herd of over 100 purebred Shorthorns, including 30 cows, on 250 acres of rolling, hilly, and partly treed land at Glen Cross in Ontario's beautiful Caledon hills, where fishing, tenting and holidaying are rapidly becoming more important than farming.

Much of the land is fertile, nevertheless, and with his lush crops of grass and his time-saving cattle accommodation, this cattleman is keeping his beef business on a paying basis.

MR. ANDERSON has been seedling down to grass for several years, and has about 200 acres of tame forage for pasture and hay. He puts up loose, uncut grass with a buckrake, on one farm where he winters some young cattle. There is some loss from stacks piled this way, but the cattle can help themselves during the winter, and his only chore is to throw them some dry hay.

At the home farm, he has built a bunker silo 10 feet wide at the bottom, 12 feet at the top, 10 feet high, and 35 feet long, and fills this with cut grass. He hires the work done, and while it provides good feed, he still says the method is too expensive.

His latest and most interesting development is his loafing barn, and

after two winters of it, he comments—"I have tied up my last cow." He admits a lazy streak after having cleaned out stables for too many years. Now he has ended that job too, and finds that cattle are healthier from living in the open barn than they ever were when tied up. Even calves born in winter are turned out to the barn once they are a week old. And they thrive.

The change also gives him a little extra time for his hobby—taking a closer look at mother nature. He has 35 acres of land that has been reforested in his spare time. He also has another hobby—bird-watching. Since he began growing corn for cattle feed, the blue-jays have taken to wintering there with glee. It costs a little money to feed them, but he says it is worth it—life is more interesting with visitors in winter, as well as summer. V

Spring Thaw Of Many Years Ago

by MAUD STRIKE

ONLY once since Dad homesteaded in 1905 has an entire winter's snow melted in a single day. That was during the month of April, 1910.

That April morning dawned bright and warm, warmer than any April day they had known. It was so beautiful that Mother set to and washed her blankets. The smell of spring cleaning was in the air.

A French-Canadian, surnamed Albert, who had been a local thresherman for several years, but who also owned a saw-rig outfit, came and asked Dad and Mother whether they thought he would be able to cross Vant Creek, that runs just back of our buildings, as he wished to get on the north side before the spring break-up. They told him he could make it, if he crossed immediately, but they wouldn't give much for his

chances in the afternoon. The snow was already melting and water running everywhere, so hot and humid was the day.

His rig was a few miles away, but he fetched it and set out across the creek. He had just reached the opposite side, with the huge tractor and saw outfit, when the water came down in a raging torrent. In less than half an hour it had covered the entire flat from bushline to bushline. Albert was compelled to leave the remainder of the equipment on the south side of the creek.

By nightfall there was scarcely a trace of snow anywhere. Only gallons and gallons of water on all the lowland. The performance has never been repeated. Never again has anyone seen an entire winter's snowfall melt in a single day, in this part of the country. ✓

F.C.L. Reports Successful Progress

NEW highs in both sales and savings were recorded in the 1956 annual report of the Federated Co-operatives Limited—a consumer co-operative organization serving the people of Saskatchewan and Manitoba. Sales of \$46,051,000 represented an increase of 10.5 per cent over the total for 1954-55. Savings were \$2,058,000, an increase of 36 per cent over the previous year. ✓

Peace River Is Bee Country



(Guide photo)
Falher Apiaries make quick work of capping with this electrical knife.

WHEN beekeepers George Handley and W. R. Hettrick of Hamilton, Montana, came north about three years ago in search of new country to locate their hives, they chose Falher, in the Peace River area, as a base for their operations. The Falher district is one of the heaviest producers of forage crop seeds in North America. Today, there are about 7,000 bee colonies located within a 10-mile radius of this center, and these account for one-fifth of all the honey produced in Alberta.

The Falher Apiaries, as the Handley-Hettrick operation is called, had about 1,500 hives in the area last year, with from 17,000 to 20,000 bees

populating each hive, or a labor force of 25 million to 30 million "employees" in all. Their operation covered 20 forage-seed farms, or about 2,000 crop acres. For supplying the land, each farmer receives a quota of honey, in addition to the aid he obtains in getting his crop pollinated.

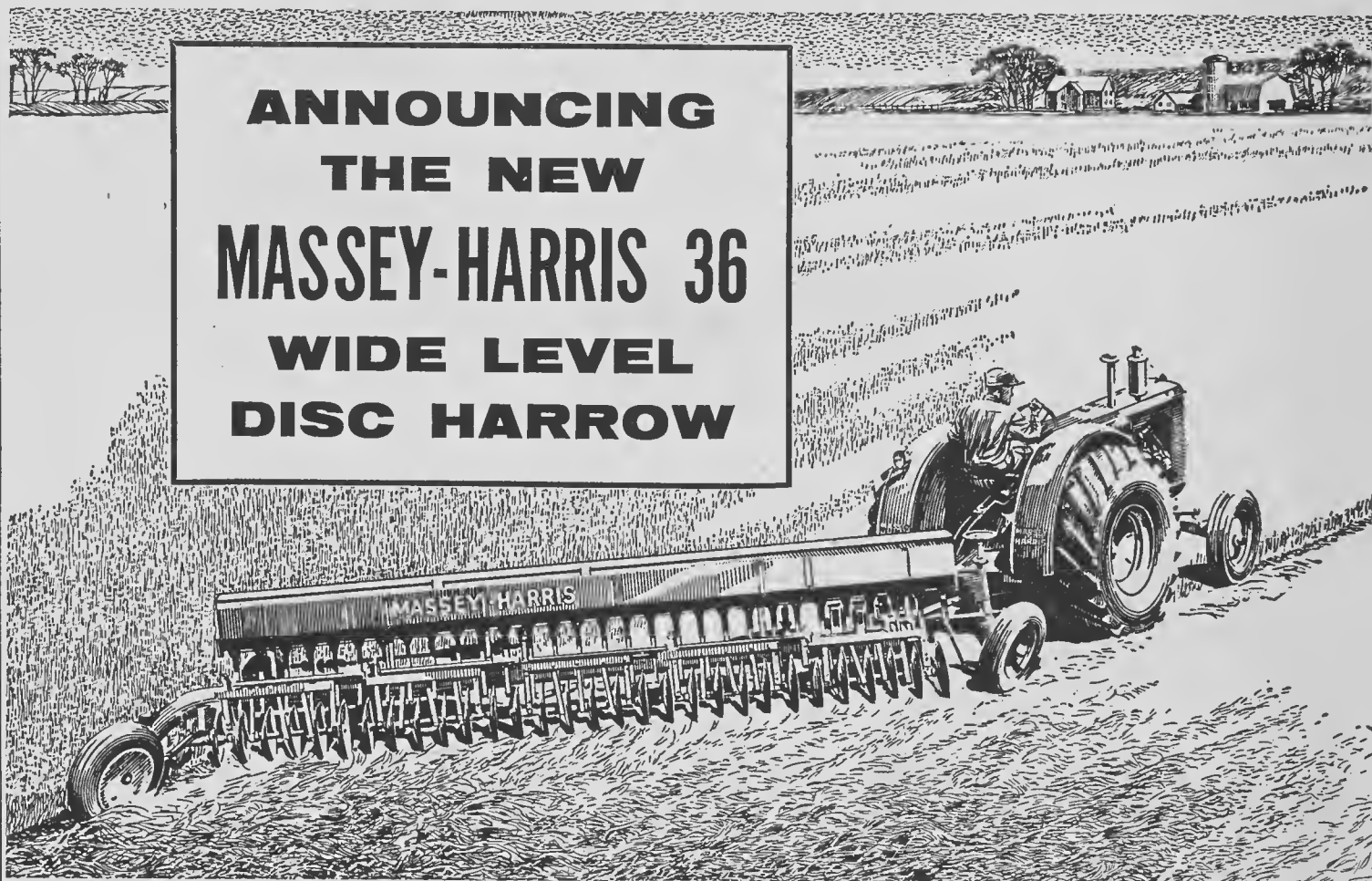
To speed up the laborious task of frame making, Mr. Hettrick developed an electrically operated frame nailer that will turn out 110 frames an hour, a job that would require the services of three men if done by hand. Other equipment used includes an electric capping knife, and a centrifugal-type

honey extractor. The heavy capping of wax over the honey-laden combs on each frame is first removed by the electrically heated blade of the capping knife, then the frames are placed in the rotating drum of the extractor, which removes the honey by centrifugal force without damaging the intricate network of combs.

Like most honey producers, the Falher Apiaries doesn't bother to winter its bees. At the end of each season (generally after the first killing frost), the insects are gassed off with cyanide gas. Every spring the partners start afresh with new bees purchased

from a California breeder. The bees are bought in two-and-a-half pound packages, each one containing a queen, a few drones, and about 8,000 workers. A package forms the nucleus of a new hive, and once they are established in position, each bee will return to its own hive, because every colony has its own distinctive odor, perceptible to bees alone.

Hives of the Falher Apiaries average about 135 pounds of honey per year. As it takes 33,000 bees to carry in a pound of honey, it's not hard to imagine where the expression "busy as a bee" originated. ✓

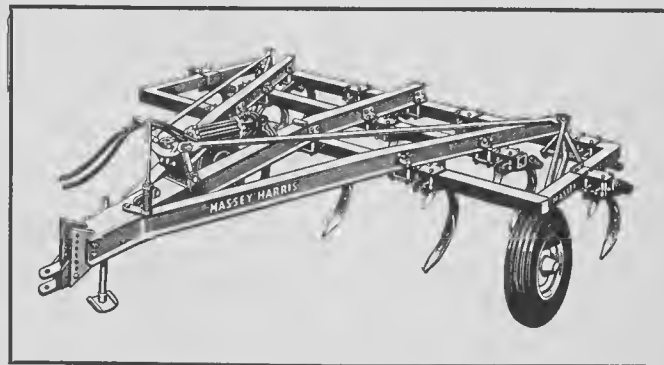


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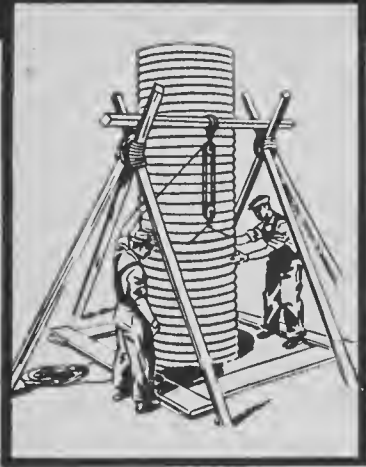
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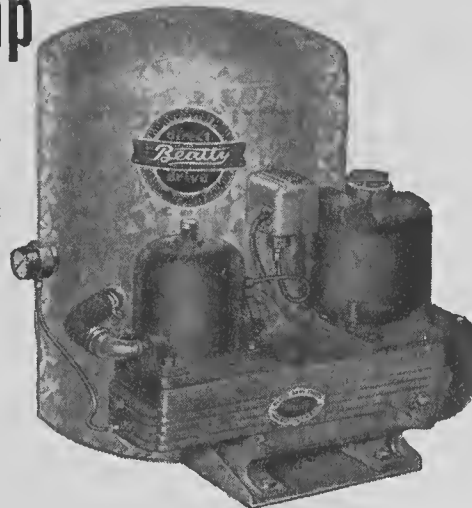
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New Look at Reed Canary Grass

Agronomists at Agassiz have been growing it successfully on the well-drained soils



[Guide photo]
Reed canary grass and ladino clover on trial at the Agassiz Exper. Farm.

DAIRY and beef men in western Canada are beginning to take a second look at reed canary grass. Long considered a special-purpose crop to be used almost exclusively for wet, or floodable land, this species is now emerging as a first-class hay and pasture grass—grown by itself, or in mixture with other grasses and legumes.

A good deal of credit for the changed status of reed canary grass in the West belongs to agronomists at the Experimental Farm, Agassiz, B.C., who have grown the grass successfully under well-drained conditions on the better soils for several years. As a result, sales of reed canary grass seed have tripled in the Lower Fraser Valley. Requests for latest information on the species have been received from all over the three prairie provinces, and from California, north to the Alaska boundary.

Many stockmen shun this grass because it was considered to have a low feed value, and a coarse stem that made it unpalatable to cattle. Another disadvantage attributed to it was an aggressiveness in the sward that crowded out more valuable grasses.

But the Agassiz tests have dispelled these popular conceptions one by one. For five years reed canary grass has been grown in mixtures with orchard grass, timothy, meadow fescue, and perennial ryegrass, and combined with such legumes as ladino clover, red clover, and birdsfoot trefoil. Cut and tested at the 12-inch growth stage, reed canary was found to have a higher protein content than any of the other four grasses, and to equal them in palatability. All of the grasses named will develop tough stems if overmature.

Reed canary grass is not an aggressive species—bluegrass, native bents, couch grass, and ladino clover can actually crowd it out of a stand, except where the ground is so wet that only reed canary will grow. In a half-acre test field at Agassiz, where the grass was seeded in a mixture with ladino clover, two rows of the former were sown to each one of the clover.

On May 23, and again on July 9 of this year, the field was grazed by a 20-head herd of Holsteins for two-and-a-half days, and none of the animals showed any signs of rejecting the feed, although it was the first reed canary grass they had ever tasted. Dry matter content for the first grazing was 19 per cent; for the second grazing, 13 per cent; and no drop in milk production occurred during that time. In fact, many animals in the Fraser Valley are now living entirely off reed canary grass, although orchard grass is still the chief hay and pasture species in that area.

When using the grass for pasture, however, it shouldn't be grazed until after it has reached a height of 12 inches. Reed canary grass will not stand close clipping, especially during the mid-summer and fall seasons. To ensure a quick recovery and maintenance of the sward, a stubble of at least five inches should be left. For hay or silage, it must be cut not later than just before the head emerges from the sheath.

Where land values are high a stand should be established during the first year. On well-drained land, this can be done with reed canary grass, if seed-bed preparation is good and adequate fertilizer has been applied. Another way to ensure a quick catch is to seed the grass at not less than 12 pounds to the acre. Seeding at much lower rates than this is sound on low-value, poorly drained land, where seed establishment is slow, but would be economically unsound on high-cost land.

To ensure quick returns, and keep weeds in check at the same time, Agassiz agronomists grew a companion crop of oats with their reed canary grass-ladino clover stand. The oats were sown at 70 pounds to the acre, before the grass-clover mixture was put down. During the 1955 grazing season, the oat crop was grazed three times, and at the last grazing there was a weak stand of oats and a good stand of reed canary grass and ladino clover. The idea was that grazing the oats would pay for establishing the grass-clover stand; and the practice is recommended for farmers with high cost land such as that of the Lower Fraser Valley.

The mixture was sown with an ordinary farm seed drill which had some of the runs blocked off; and the seed was mixed with a granulated insulation material. In early spring, 10-20-10 fertilizer at 200 pounds per acre was used, and the reed canary grass only was given a 40-pound-to-the-acre dressing of nitrogen after each grazing.

Under such management practices reed canary grass pastures have yielded up to two tons of dry matter per acre in the first year, even when sown as late as June 18. In the Lower Fraser Valley, this grass is still the best wet-land species, as well as the best drought-resister presently available in the area.



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Newfoundland Blueberry Crop

by D. W. S. RYAN

NEWFOUNDLAND'S blueberry crop is wild and free for all. As a minor industry it puts a few hundred thousand dollars, more or less, into the pockets of a few thousand villagers who cash in on the crop.

The crop doesn't flourish all over the island. The chief berry grounds are confined to three peninsulas—two on the east coast and one on the south. On these peninsulas are vast stretches of burnt-over country on which the berries thrive well.

Moreover, the land on which the berries grow is Crown land and so is free for all who wish to partake of the crop.

The berries ripen toward the latter part of August. It is then that the coastal villagers with their two- or three-gallon water buckets, or five-gallon wooden boxes, take to the hills to glean this wild fruit crop, which helps supplement fishing and farming income, or social security benefits.

Picking is done by hand and an average day's pick is around six or seven gallons. This may result in a couple of trips to the hills.

A small percentage of the crop is harvested by rakes, furnished by the processing companies. The date for rake harvesting is set about ten days or two weeks later than the date for hand-picking. Rake harvesting, however, is not encouraged, as the rakes



Newfoundland blueberries are harvested by hand-gleaning, also by raking. Their sale provides a useful supplement to family incomes on the island.

destroy the unripe berries on the bushes and leave very few for later picking.

The price paid pickers has varied from 40 to 70 cents a gallon during the past three years. Price is governed by the market demand, as well as by the supply of berries.

A good season's pick may increase the family income by \$100 or more. The harvest is short. When the blueberries are in their prime for picking, the partridge berries or loganberries are ripe. These are hard-natured berries and grow on the same barrens that the blueberries thrive on. Villagers can double or triple the amount of a day's blueberry pick during the first few days of the partridge berry

harvest, which begins around mid-September.

The blueberries are shipped to the local village merchant, who pays on receipt or ready cash for the purchase. He then takes them to the nearest cold storage where they are processed.

First of all, they are frozen, then cleaned, and packed in sanitary containers consigned to the American market, which buys nearly all of the Newfoundland product.

Before the berries are packed, they are inspected by government inspectors to ensure that only quality berries reach the market. Each package is stamped with a certificate number, thus making it possible to trace the inspection of any single package.

Apart from an inspection service, the government also maintains a policy of burning over land to increase production. Last year 2,600 acres of barrens were burnt over; 20,000 acres were scorched the year before.

Burning is a cultivating process. Old sterile growth is destroyed and new shoots reborn. During the first year of burning the harvest yield is poor, but the second and subsequent years yield good picking.

This burning is carried out in early spring, when the grasses and shrubs are dry enough to permit burning, and the ground not too dry to allow the fire to penetrate to the roots. Precautions are taken to cope with any fire which may get out of control.

The provincial government, in co-operation with the Federal Department of Agriculture, is conducting experiments in blueberry cultivation. A 30,000-acre blueberry plot has been marked out at Avondale on the east coast of the island. In this experimental plot all phases of blueberry cultivation are watched and noted. This project is relatively recent and results have not yet been fully assessed.

The Newfoundland blueberry harvest, which yielded 2,700,000 pounds of fruit three years ago, means much to villagers along sections of the east and south coast. Gleaning the berries is hard work and the reward small—but villagers nevertheless welcome this wild, uncultivated crop each summer, and eagerly look forward to the approaching harvest with itching fingers and keen anticipation. ✓



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Fancy Roping

Photographs by GILL GARON

Story by PATRICIA M. CROWLEY



Hope Hunter spins a "wedding loop," while he is waltzing with his partner.



A "big loop," made by spinning the rope out to 75 feet, is one of Hope's spectacular performances. This feat demands not only skill but endurance.

TRICK and fancy roping staged a comeback in the Alberta Foot-hills through a veteran of the range, Hope Hunter, and his wife Madge, recently deceased. Born and raised on a Priddis ranch, southwest of Calgary, Hope worked for Guy Weadick, of Calgary Stampede fame, whose wife became the undefeated ladies' world champion roper over 40 years ago.

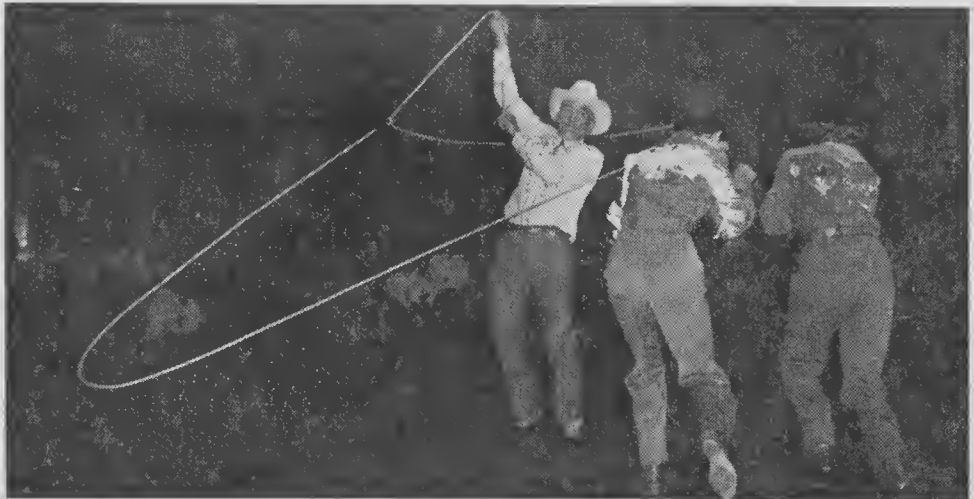
People like these sparked Hope Hunter's interest in roping, and now that he lives at High River, he has started classes for boys and girls in the intricacies and split-second timing of rope spinning. It looks like being a big success.



Hope and the late Madge Hunter with some of their rope-spinning pupils.



Above: Jimmy Arnold, 12-year-old advanced student, handles a 45-foot loop. Below: Elaine Bradley and Helma Flynn run into the loop with Hope Hunter.



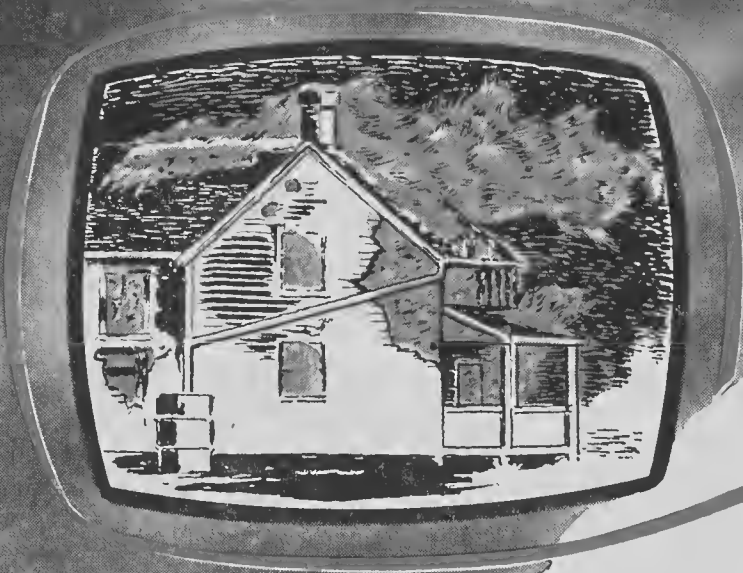
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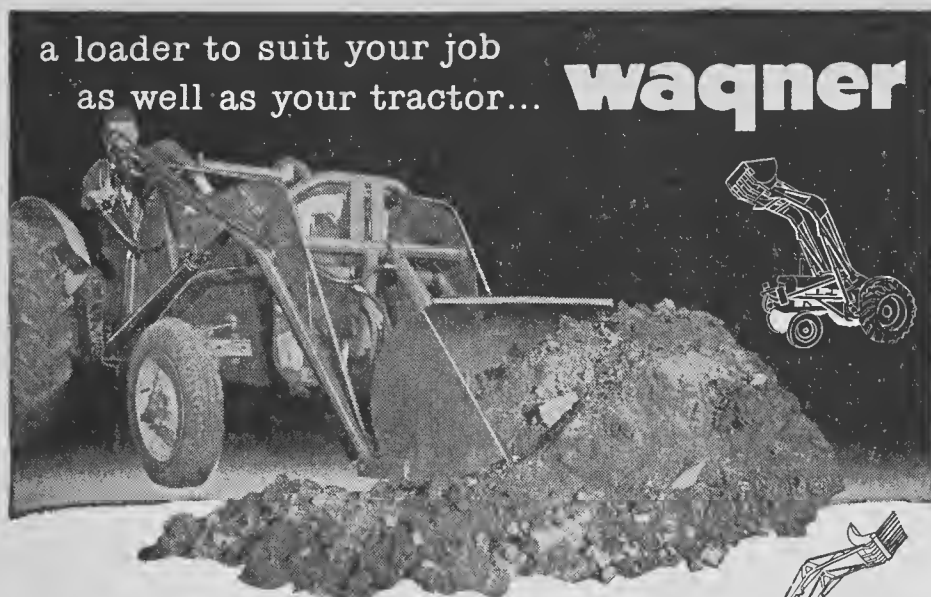
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Seed Cleaning Means Clean Seed

by CAM KIRK

IN 1955, more than one-third of the seed samples — over 450 — taken from 1,362 seed-grain drills in 17 Alberta districts were so full of weed seeds that they were classed as rejected. Seed surveys taken in other prairie provinces showed similar results.

These facts indicate that seed grain is not generally being cleaned as it should be. In some instances, it is not being cleaned at all.

The result? You remember the old saying that if you seed wild oats you are bound to reap them more abundantly than they were sown. Weeds grown with grain strongly influence the cost of production, the quality of the grain, and its yield. Therefore, the logical thing to do is to get all of the weed seeds out of the grain before it is put into the ground.

How can this best be done? There are two ways of doing it. You can have it custom cleaned, or do the job yourself, on the farm.

If it is custom-cleaned, you obviously take a chance of having weed seeds and seed-borne diseases migrate to your farm from some other area. Too many of our so-called seed-cleaning plants help to spread weed seeds and plant-borne disease. Therefore, be very careful about where you have your custom cleaning done and how the clean seed is hauled.

Check the following things about the plant you intend to have do the work:

1. Does the plant contain reputable cleaning machinery? The volume of grain handled in a plant is not an indication of how thoroughly it is cleaned.
2. Does the operator thoroughly clean all his grain-handling equipment after each batch of grain is put through, and does he keep the machines clean and in good adjustment during the operation? Good machinery alone will not guarantee a good job.
3. Is the cleaning establishment equipped to adequately treat your grain with a fungicide as it leaves the plant?
4. Is the truck-box which carries the seed-grain to your farm, swept out?

If you are satisfied that these questions can be answered in the affirmative, you will probably have a good job of seed-cleaning done.

Good plants, specially designed for seed-cleaning, generally turn out cleaner grain than some small farm-owned units. There are two main reasons for this. Separating processes are limited to a small number in a small machine. The cost of buying a number of cleaning machines to cope with all the conditions is prohibitive. Secondly, and more important, the farm-owned machines are generally not adjusted properly.

HERE are a few hints that will help you when you find it necessary to clean your own grain.

1. Choose a machine, or machines, which will best handle your weed problems. Weed seeds are separated from clean grain in the following ways. By a scalping action (air blast action), by differences in weight, length, width, and surface texture. A fanning-mill type machine will best handle straw, chaff and small, light kernels by blowing them out of the grain. A Carter disk, or Indent cylinder type, will separate weed seeds from seed grain by their difference in size.

2. Do not try to force your machine beyond its normal capacity. To avoid this tendency, start cleaning your grain well in advance of seeding time.

3. Choose a good selection of screens and sieves for your fanning mill and use the right ones for the job you are doing. You cannot expect one set to clean all varieties of grain. Keep the sieves and screens clean. When they become plugged, they allow weed seeds to go right through with the seed grain.

4. Adjust the air blast as high as possible without blowing over good grain. Small, wrinkled, light kernels should be blown out, as they will probably not germinate.

5. The fact that you have put your grain through a cleaner does not prove that it is all seed grain. Run a germination test of your final product and prove to yourself what kind of job has actually been done.

Clean, fertile seed grain pays dividends at harvest time!

(Note: Mr. Kirk is a staff member at the School of Agriculture, Olds, Alberta, in the Department of Agricultural Mechanics.—ed.)

Readers' Snapshots



Trigger, the Shetland pony, pulling the buggy for Estelle and Bernard on the daily drive to school. Aime Lalonde, Arborfield, Sask., took the picture.

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Leonard Martin examining regrowth on rotationally grazed pasture sward.

WITHOUT managed pasture, Leonard Martin would be hardpressed to maintain a 22-cow milking herd on his 85-acre farm at Elmira, Ontario. For example, he seeded eight acres to pasture in 1955. He then divided the area into three fields to permit rotational grazing, and obtained 119 pasture days (one cow grazing for one day is a pasture day) per acre from it the first year, the equivalent of 43 days of grazing for each of his 22 cows.

At the end of July, 1956, when The Country Guide representative called, the cows had already taken 142 pasture days per acre from two of these fields (over a month of grazing), as well as 58 pasture days per acre from the third field. In addition, the third field had produced five tons of hay. Spurred on by heavy rainfall, it had bounced back from the grazing and clipping it had undergone, and was again a dense green mat at least a foot high.

"You can't abuse pasture, if you want good yields," Leonard explained. "My other pastures carry the herd when this one is recovering. But you have to grow good pasture in the first place. That calls for high soil fertility, and a good pasture mixture."

THIS dairyman applied 400 pounds of 3-10-10 fertilizer per acre when he was preparing the seedbed in the spring of 1955. Then, in June 1955, with the forage well up, he covered it with a heavy dressing of broiler chicken manure. This strong dose shocked the growth into a temporary setback, but it recovered and came on again stronger than ever. In the spring of 1956, he dressed the pasture again. This time he used 10-10-10 fertilizer, at the rate of 100 pounds per acre, with a view to getting the pasture off to an early start.

Martin uses oats as a nurse crop at seeding time. His seed mixture is applied at 15 pounds to the acre and consists of six pounds alfalfa, one of ladino, one of white dutch clover, one of timothy, four of orchard, seven of brome grass and two pounds of meadow fescue. He invests in improved varieties of the grasses and clovers whenever they are available. Under this kind of pasture management, Mr. Martin grows all of the roughage and much of the grain the cattle require, but buys concentrates.

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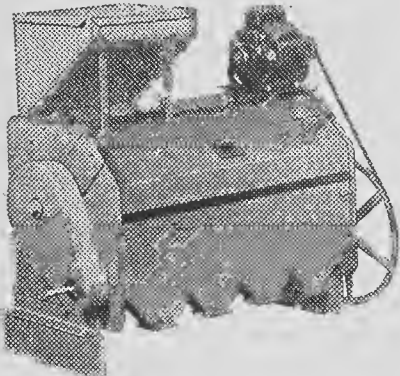
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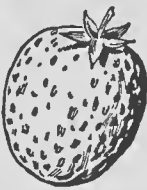
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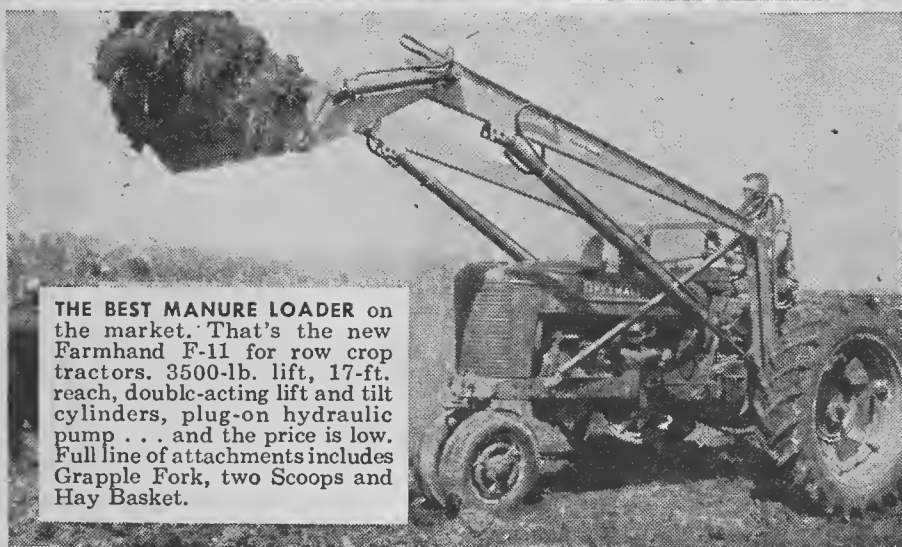
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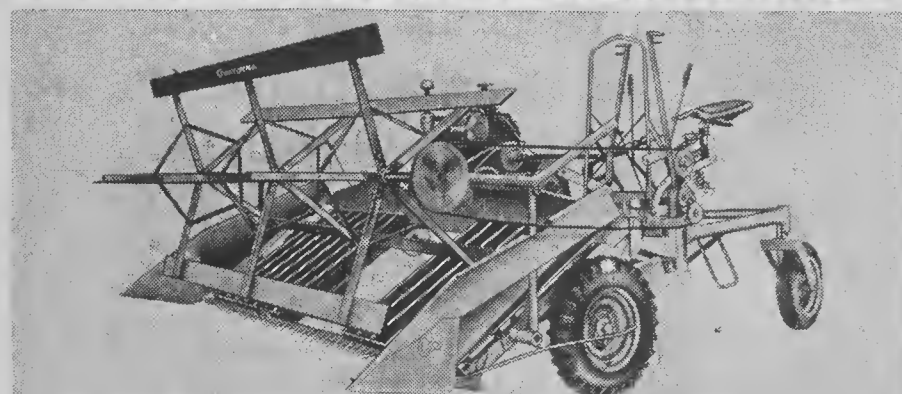
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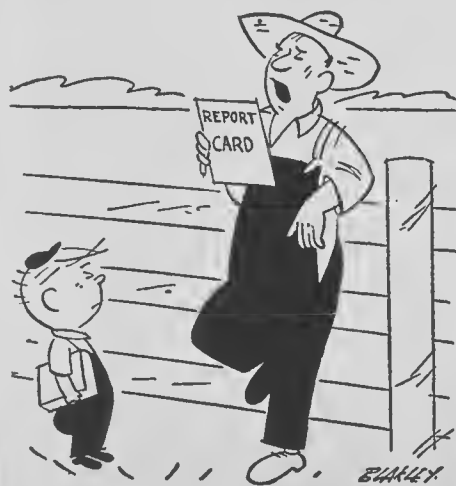
Continued from page 9

On the question of cost, which is often the key factor in persuading farmers to take to the air, Mr. Thompson has this to say. The cost of flying lessons, which are given by the flying clubs, is \$350 for the minimum of 30 hours dual- and solo-flight time, but \$100 of this is repaid by the Canadian government when the farmer qualifies for his licence. Used aircraft can cost around \$1,200, although many have paid less for airworthy machines. A new one costs upwards of \$4,500 for a two-seat plane. Then there is the compulsory check for airworthiness, which must be made every 50 hours of flight time, or every six months, whichever comes first, at a cost of about \$50, provided that major repairs are not required. Membership in the Flying Farmers costs \$10 annually for the farmer and his wife, \$9 for a single membership, and \$1 for each junior member in the family.

Kenneth Butler, our Minnesota friend, views the cost of flying in this light. The farmer usually has a car, or maybe two, and does not expect them to pay for themselves. If all he wants of a vehicle is that it should pay its way, he should settle for a pick-up truck, and nothing else. Mr. Butler regards the airplane as a way to a fuller life, which could not be enjoyed to the same extent with a car. The farmer has few vacations, and can make the most of them when he can fly.

TALKING to the Flying Farmers at a meeting in Regina last fall, Harold Horner, deputy minister of agriculture for Saskatchewan, complimented them on making the airplane an implement of agriculture. Some regard it as a means of agricultural education, too. They take their neighbors up for flights, and show them what their work looks like from above. Or they follow the example of Vince Sweatman of Kelliher, Sask., who takes members of the Campbelltown 4-H Club for flights, as rewards for achievement, while getting them accustomed to the idea of flying. This farmer, like many others, keeps his landing strip grassed, goes over it with a spring-toothed harrow in the spring, and uses an ordinary harrow to level it later. He also takes hay off it.

Saskatchewan has the largest Canadian chapter of F.F.A. This is partly because there are so many large farms in the province, but also because of the enthusiasm of their leaders, headed by



"What kind of milk checks would I get with grades like this?"

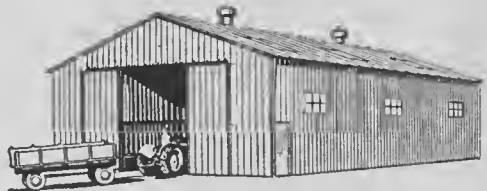
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their president, Gunnar Carlson of Craik, the "Queen," Florence Jensen, whose husband farms at Gull Lake, and Helen English, secretary. The Saskatchewan flyers are very interested in setting up low-cost flying strips adjacent to towns, and are also preparing a guide to the Flying Farmers' own landing strips.

Nic Froebe, with two farms five miles apart at Homewood in southern Manitoba, can give several good reasons why a plane is an asset. He used it to see how the water was lying when he worked out a drainage scheme in the spring. He also brings his men home after they have been working some distance away, or takes lunch to them. He can see how the work is progressing, in a matter of minutes, and can direct his machines to where they are needed most, or carry fuel to them. He has also flown

**I shoot the Hippopotamus
With bullets made of platinum,
Because if I use leaden ones
His hide is sure to flatten 'em.
—Hilaire Belloc.**

to the city for replacement parts, so that machinery is not immobilized for long periods. His airplane has been especially useful when organizing snow clearing operations; and flying enables him to get about even after the heaviest snowfalls.

With his light, two-place plane, he finds that he uses no more gasoline than he would with a light truck. For short runs the consumption is 25 miles to the gallon, and on longer trips he averages between 27 and 29 miles. "This is ideal country to fly in," he says. "With landing speeds of 50

miles an hour, we can put our planes down almost anywhere."

One of Nic Froebe's ambitions is to have a landing strip straddling the international boundary, where planes crossing the line can set down for customs inspection, alongside an established customs post, instead of having to fly miles out of the way to airports on both sides, as at present. Flying Farmers in North Dakota are working with him on this problem.

A few miles to the south of Froebe, is Ken Pritchard of Rowland, who has been working on the customs landing strip idea, too. A former instructor with the R.C.A.F., he sprays his own crops with 2,4-D from the air, and helps his neighbors with their weed control as well.

The flying clubs are welcoming the farmers' interest in airplanes. Ed McGill, secretary-manager of the Brandon Flying Club, says that about half of the men they are training to fly now are farmers. Most qualify after the minimum training period of 30 hours, and in addition, learn as much about their aircraft as the average man knows about his car. The holder of a private pilot's licence is also required by the Department of Transport to have normal health.

If you want to join the Flying Farmers of America, any of the farmers mentioned in this article will be glad to advise you. They can also tell you the places where you can buy an airplane, and how to get your flying training.

With little more than 300 members, the Flying Farmers are a comparatively small group in Canadian agriculture, and it is not surprising that

Wherever you farm...

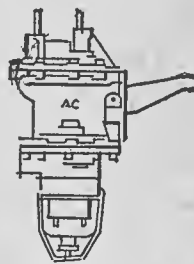
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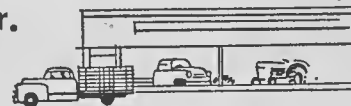
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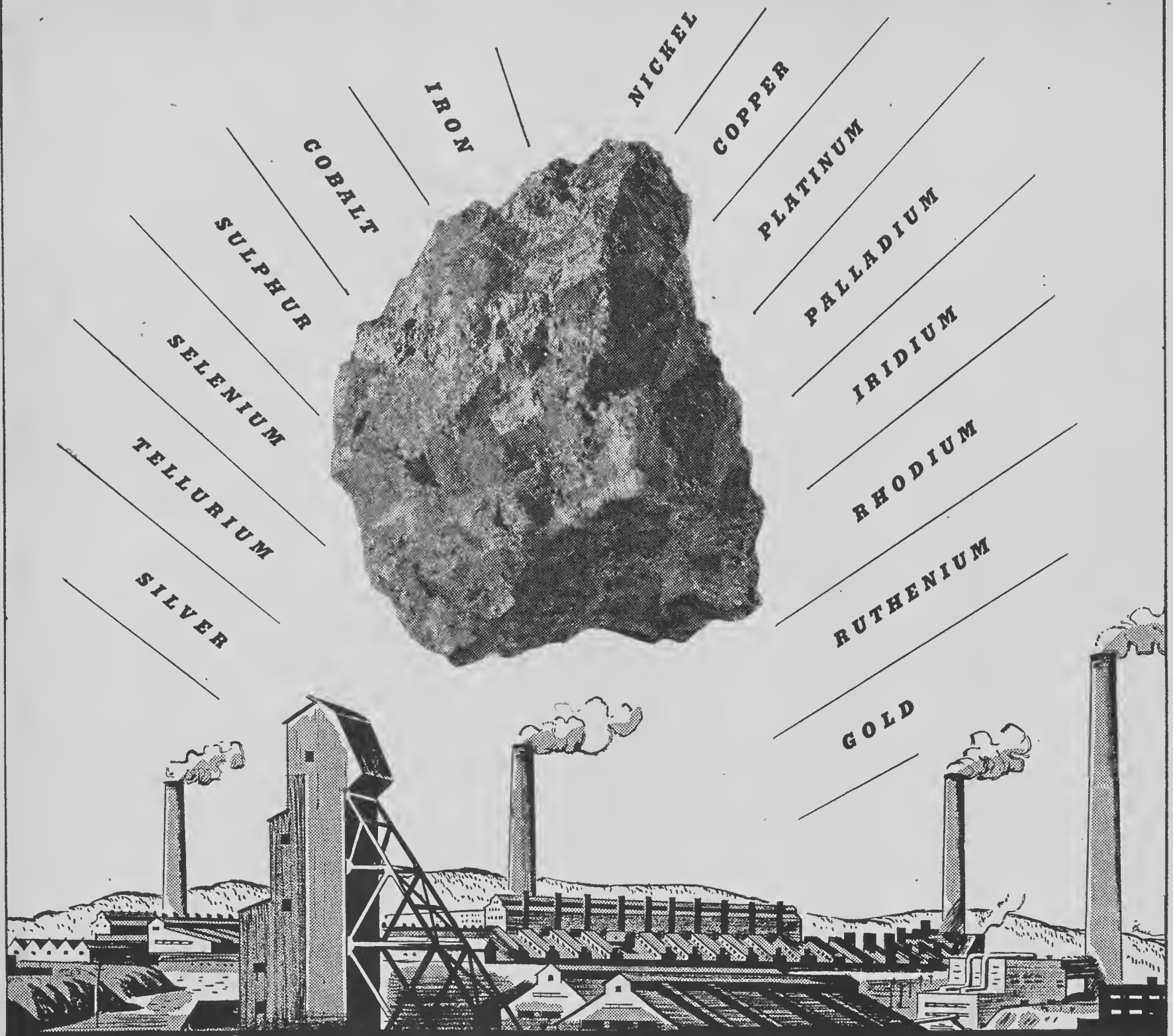
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A vast network of Inco mines and plants now obtains 14 elements from ore once thought to contain only copper. Millions are being spent each year for Inco research to recover new products and develop better methods.

NEW WEALTH FOR CANADA FROM INCO ORES

Inco Research finds ways to recover 14 different elements from Inco's Sudbury ores

IMAGINE—14 elements from one ore deposit! But it wasn't always that way. At first Inco ore was mined for one metal—copper. It turned out that the ore contained more nickel than copper. To make use of the ore at all, research had to work out a method of separating the nickel from the copper.

Since that time, Inco research has developed ways of recovering twelve other elements, most of which are present in the ore in minute quantities.

Gold and silver came first, recovered from the sludge left after refining nickel and copper. Then one after another came platinum,

palladium, rhodium, ruthenium and iridium; selenium and tellurium.

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Thus does Inco research continue to develop new products and processes that help stimulate the growth of Canadian industry and provide jobs for Canadians.



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they have not had a marked effect on the agricultural scene so far. But they are not the first to pioneer new trails, and it may be that what they are doing, and what they believe can be done, will have as big an influence on the shape of farming to come, as the tractor has had. With an airplane, nothing is very far away. V

The Amazing Broiler Business

Continued from page 11

bulk. It is augered from truck to bins in the top of the buildings, from where it is gravity-fed to small bins in the corner of each pen below. All pens are hand-fed, in hanging feeders. This means some extra work, but requires that the men spend some time in the building, and assures Len that any disease will be spotted at the first symptoms.

Fans automatically keep the pens ventilated, although because his two big barns are conversions, inadequate window space in the lower floors make this difficult sometimes. When each lot of broilers has been marketed, the pens are cleaned out and disinfected by burning sulphur and charcoal.

THIS kind of management, combined with high-energy rations, antibiotics (fed in all rations, but occasionally as high-level doses to combat disease), and cross-bred birds of a meat type, have all combined to make a development like Len McQuay's possible.

The toughest blow to hit growers so far came last summer. Prices fell to 17 cents, and brought Len his first real losses. A surplus of chicks in the U.S., and subsequent low broiler prices, created conditions under which many hatcheries there sold chicks at bargain prices. Some Ontario broiler men bought these, and 360,000 chicks were imported in June, 1956. Another 150,000 were brought across the border in July. Many of these were poor quality birds, and when they came to market, along with the regular run of birds, the combination of numbers and poorer quality collapsed prices.

By September 1, prices were down to 18½ cents. They slipped further to 17 cents, and it was the week of November 24 before they finally came back up to 20 cents. (Summers says that an efficient producer requires at least 21 cents to break even, and more for a profit.)

This meant for growers a prolonged period of below-cost returns. It is the kind of situation that has squeezed out many of the few remaining independent growers. Unhappily for such growers, Summers says, it is they who must bear the brunt of low prices, while the thinking, financing and promoting is being done by the large operators.

A U.S. commentator described it this way: When the broiler industry was made up of independent producers, it was highly sensitive to changes in the market price for broilers. Now, with production largely under various systems of contracting, and with some guarantees to the grower in most cases, there is nothing to effectively prevent serious overproduction. In other words, in times of surplus and low prices, the well-

financed operators maintain production, waiting for someone else to make adjustments. The independent growers are doing the adjusting now.

Meanwhile, the broiler business continues to expand. Near the McQuay place, a new building 405 feet long, with two floors handling 40,000 birds at once, is being built. Another mammoth plant at Kitchener handling 50,000 birds at once has been operating for several years. Meanwhile, too, beef and pork consumption have remained high in the face of this assault on the consumer, and no one seems sure just what affect this combined pressure of meat supplies may have on the market. One observer concluded that it was cutting into the sale of other types of dinners like macaroni.

Whatever the answer, the broiler business is showing the way in the application of modern science to the business of meat production. Any farmer must consider it, if he expects to survive in today's competitive market. V

"Carter"

(formerly MacDonald)

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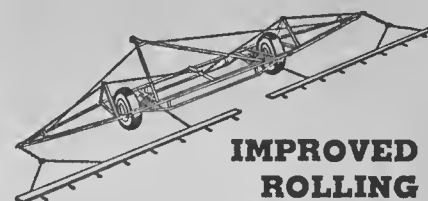


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Every week, some 1,400 fires break out across Canada. Companies writing fire insurance pay out more than one hundred million dollars annually in claims. And yet virtually all the fires which take the lives of more than 500 Canadians each year are preventable.

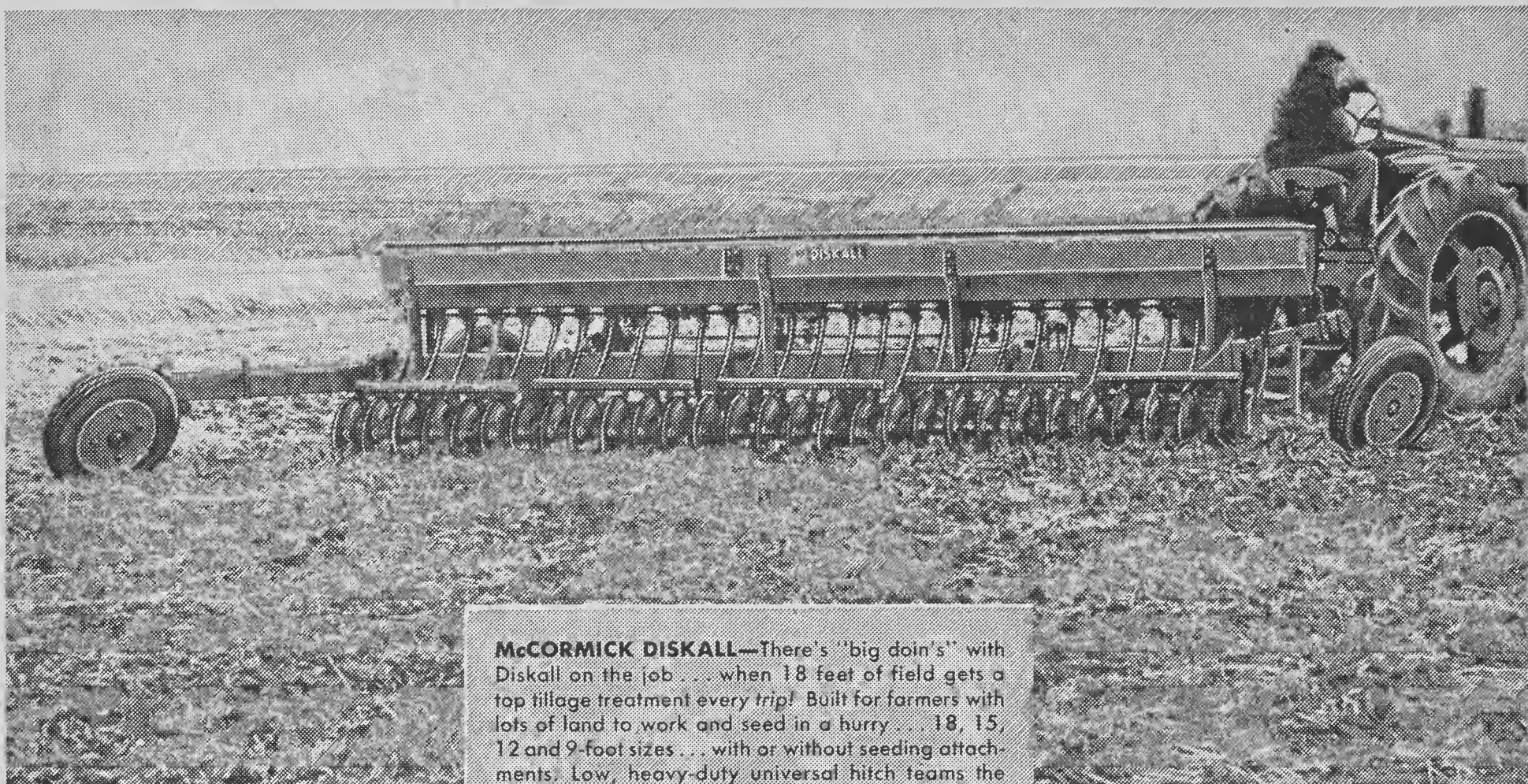
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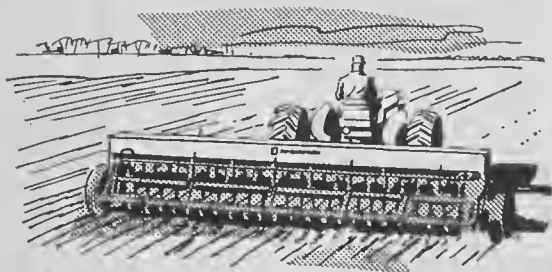
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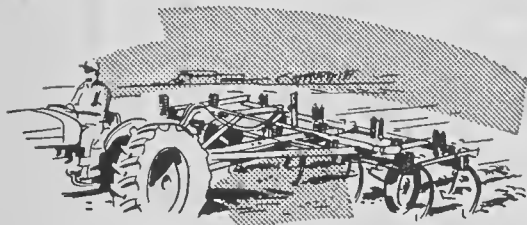
BUILT FOR THE WEST

cost-cutting International Harvester

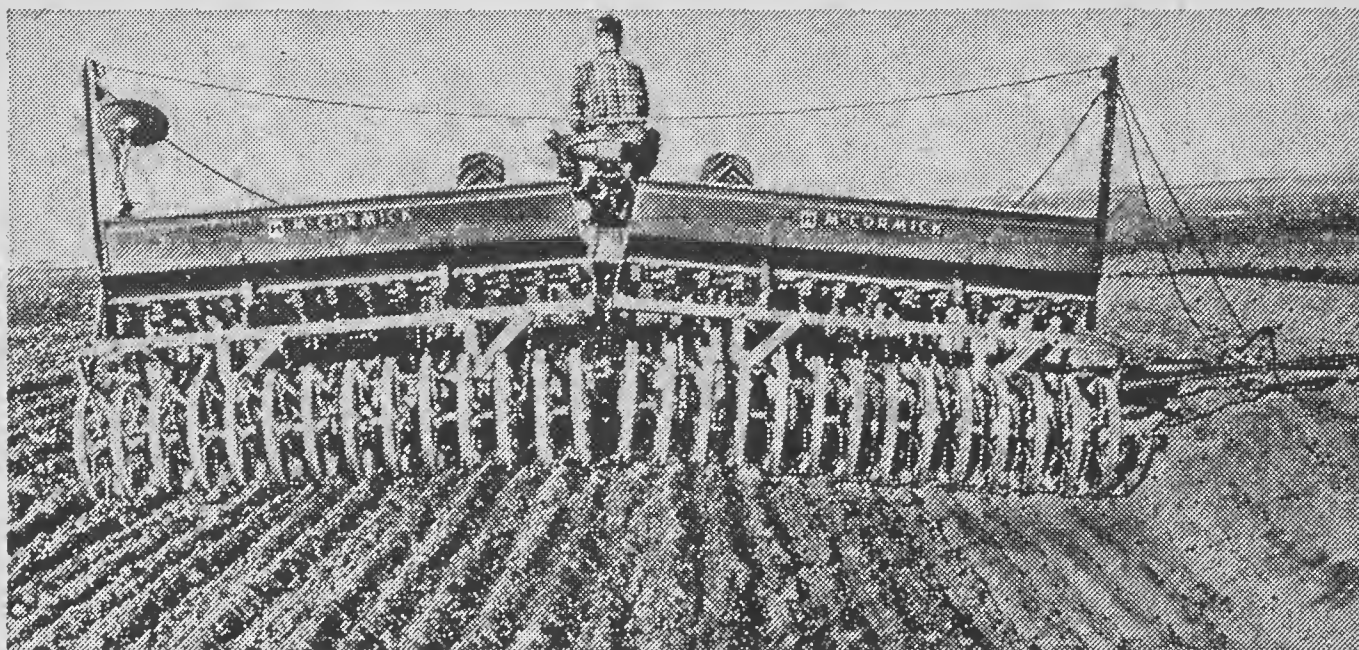
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Rubber-tired wheels speed travel and improve flotation on this 14-foot McCormick low-wheel Model M. Available with either 6 or 7-inch spacing—in 14, 20 and 24-furrow-opener sizes—with spring, hoe, shoe, single disk, deep seeding or double-disk openers.



New McCormick No. 50 Chisel plow with high trash clearance is the tool for spring—or summer fallow.



NEW McCORMICK K6 AND K7 PRESS DRILLS

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INTERNATIONAL HARVESTER COMPANY OF CANADA LIMITED, HAMILTON, ONTARIO

35-655

The Plant That Seed Built

Continued from page 13

because weeds must be controlled at all costs, his land is generally cleaner than that of the average farmer. Added to this, the qualified seed grower has the satisfaction of knowing that he is doing his part to improve Canadian agriculture. Other farmers will get better crops and higher returns because of his efforts.

THE Mohler farm has 595 acres of land under cultivation. A two-year, grain-summerfallow rotation is followed, the crop consisting of two-thirds wheat and one-third Hannchen barley. Weeds are controlled by working the soil as early as possible in the spring, then delaying seeding until weed growth can be killed by another cultivation. Elite seed plots are cultivated with a garden tractor.

Weeds such as wild oats, which become a problem after spraying has ceased, are picked by hand, and this involves a good deal of labor. For several years, Franklin has had the help of a married couple on the farm, plus seasonal help from the village of Maymont.

A tribute to the care he gives his crops came from a government seed inspector during one of the latter's field trips. "You are one of the few

seed growers growing wheat and barley," said the inspector, "who hasn't had some barley in the wheat fields and wheat in the barley fields."

The only livestock on the Mohler farm today is a team of horses. Although Franklin has nothing against keeping livestock, he believes that specialization means a better product and more efficient farming in the long run. His activities in various agricultural groups keep him on the move a great deal of the time, which would seem to indicate that straight grain growing is the best policy for him. In addition to being a member of the Canadian Seed Growers' Association, Franklin was chairman of both the Agricultural Improvement Committee and Agricultural Society of his district (Mayfield-Douglas), and a director of the Saskatchewan Field Husbandry Association, to which he has belonged for over 20 years.

Franklin Mohler would be the last to claim that his place should be held up as a model grain seed farm, or that its development was due to his efforts alone. However, he is proud of the fact that his father and mother were married the year Alberta and Saskatchewan became provinces, and of how they worked together to clear the rough parkland to make way for their first crop. Furthermore, he wouldn't be a seed grower if he didn't point out that one of the basic principles of good farming is to sow only high-quality seed. V



Norman Henderson gets 35 bushels from the fall wheat and 60 to 70 bushels of oats per acre on this black, loamy soil in the Mountain View district.

Farming Near the Rockies

NORMAN HENDERSON of Mountain View, Alberta, farms about 250 acres of rolling upland, a few miles from famed Waterton Lakes National Park. The area is covered with a heavy mantle of black, loamy soil, which has a high native fertility, and holds moisture well. If it's a grass or hay crop a farmer is after, he has only to relax and let her grow.

"Unless I keep cultivating my grain fields pretty steadily," said Norman, "they get choked with timothy and brome in no time at all."

Without benefit of commercial fertilizers, or irrigation, Henderson gets a yield of about 35 bushels to the acre from his fall wheat, and from 60 to 70 bushels of oats. On the average, his grain crops take up about 60 acres, with the remainder of the farm

left to pasture and wild hay for his 48 head of Herefords. Yields of natural hay run about one ton per acre, which generally means that there is enough to take care of winter feeding needs, with a good portion left over to sell in less fortunate areas.

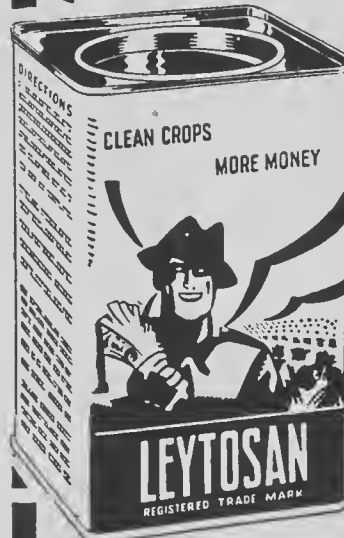
Because of the closeness of the mountains, Norman's farm gets enough rain and snow to keep the land well supplied with moisture for the growing season. Even when it gets very dry on the lowlands to the east, he can count on a good crop. But there have been exceptions, for during the "thirties", fingers of drought reached up to Mountain View.

Asked about the chances of recurring drought in the near future, Norman shook his head: "Even since the grain glut, and improved cattle prices, more and more land in this district has been going back to grass."

Another example of how economic forces are at work to give this country a "soil bank" program of its own. V

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Seed treatment with
Leytosan ASSURES
INCREASED GERMINATION,
Greater Yields and
Higher GRADES

FROSTED Seed Germinates Poorly

Early frosts last fall caused severe crop damage last fall throughout the prairies.

HERE IS SOME ADVICE FROM DR. F. J. GREANEY DIRECTOR, LINE ELEVATORS' FARM SERVICE

- "the majority of frosted wheat samples germinated poorly
- the germination situation in oats is serious
- Treat ALL YOUR Flax Seed this spring with one of the recommended mercury seed treatments

FARMERS SHOULD NOT TAKE A CHANCE ON
USING FROST-DAMAGED GRAIN FOR SEED."

Excerpt from "Seedtime and
HARVEST"—January 10, 1957

For over twenty years Leytosan mercurial powder has been the choice of Western Canadian farmers in the most effective control of smut, root rot and all soil-borne diseases. Leytosan is very economical to use. Just 10 lbs. will treat 320 bushels. You will be well repaid for this small cost with bigger crops and better grades.

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In wire-worm areas use the dual treatment Leytosan G91 for the effective control of wire-worm and smut.

Don't Trust to Luck — Trust Leytosan

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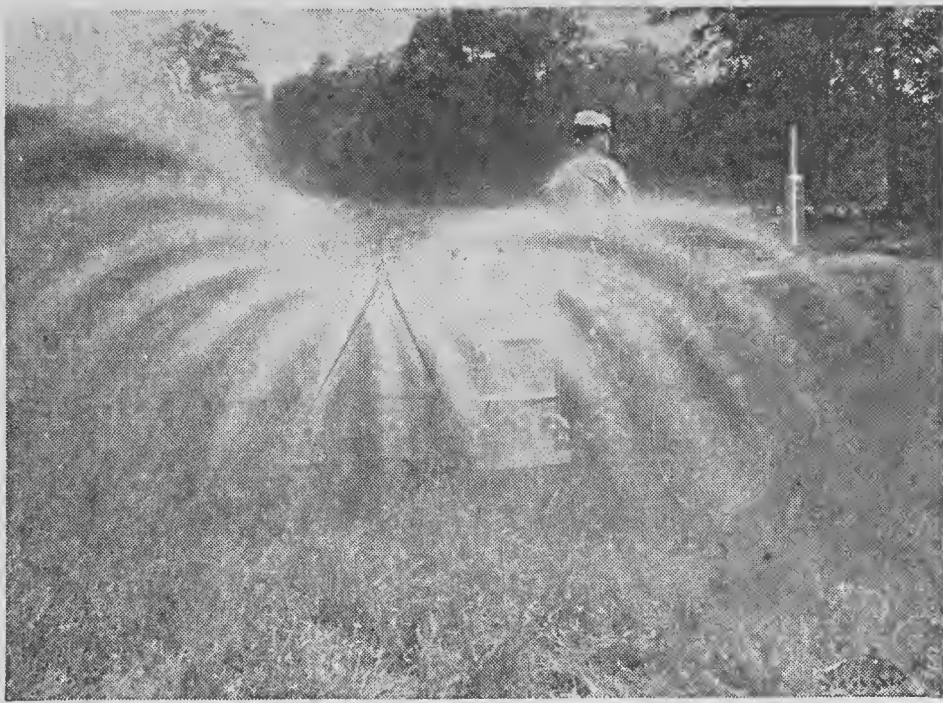
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You needn't suffer from sharp rheumatic pains. Try following the example of Roger Thouin, 2124 Dorion St., Montreal, who found relief through Templeton's T-R-C's. He tells us: "I have suffered greatly with wry neck—a sharp pain in the neck—which attacks me whenever I am exposed to dampness. The pain in the neck gets really severe and then spreads to the right shoulder and the small of the back. I am grateful to have found Templeton's T-R-C's, which I consider perfect; I am delighted with the benefit I got from using them." Why don't you let T-R-C's help you too? Try them today—only 79¢ and \$1.50 at drug counters. For stubborn cases, use T-R-C's SPECIALS—easy on sensitive stomachs.

T-127

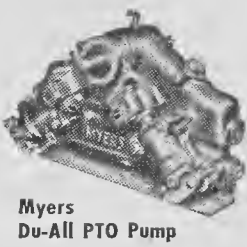


Nothing Covers Like a Spray

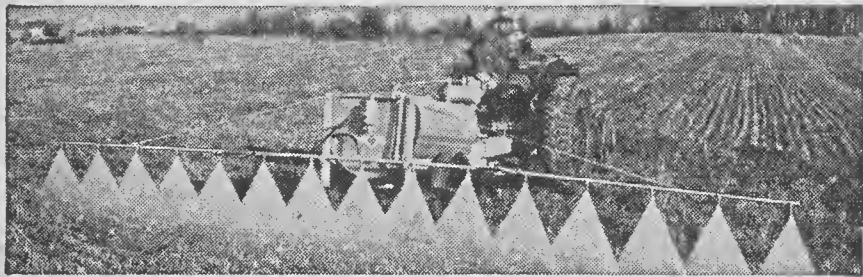
Whether your farm spraying jobs call for high-pressure, low-capacity spray or low-pressure, high-capacity applications, the new Myers Du-All PTO pumps will give you better spray coverage.

Used with the Myers Mighty Mite or with tractor-mounted booms, the 6-GPM two-cylinder version of the new pump is ideal for low-pressure weed spraying. The same pump will develop 300-pounds pressure, enough for good insecticide penetration when you go after livestock pests with a Myers cattle-spraying gun.

The Du-All PTO pump is also available in a one-cylinder, 3-GPM size:



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MYERS GENERAL-PURPOSE SPRAYER

If the spraying jobs on your farm require more capacity and greater pressure, then a Myers GP is for you. Whether you need a low-pressure boom sprayer for fighting weeds or a high-pressure fog unit for fighting fires, the versatile GP can do the job. Engine-mounted models are available on wheels or skids for easy moving. PTO drives are also available.

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Ethiopia Farms by Hand

Continued from page 12

interested in growing them. Even in the region of Harar, where Italian plantation methods—irrigation, inter-culture, rotation and seed selection, terracing—have caught on more than anywhere else in Ethiopia, the bulk of the area is devoted to *chat*. The leaves of this plant, scientifically known as *catha edulis*, are chewed by the Mohammedans and seem to produce intoxication and hallucinations.

Grazing is another important aspect of Ethiopian agriculture; there are somewhat over 20 million head of cattle in the country. Nomadic grazing is confined to the southern and eastern semi-deserts and their margins. On the mountain slopes and plateaux there are also many cattle, mostly of the Zebu variety imported from Asia. In the lowlands there are still some very long-horned *bos primigenius*, or undomesticated variety, from the days of the Pharaohs. Ethiopian cattle are stringy and lean and produce mediocre hides and tough meat. Meat and yield of milk, usually about one litre a day, have too often been a secondary consideration, and color and form of horns have been stressed in exchange value instead.

Goats and sheep are of some importance too. The goats thrive on the rocky mountainsides and the semi-arid deserts. They are raised solely for their skins: goat milk is not appreciated. Sheep, of a rather inferior, short and fat-tailed variety, are raised for skins and mutton. Raw mutton is a great delicacy and is reserved for festive occasions. For their size and care, for no form of grazing requires much care to Ethiopian minds, sheep really provide valuable returns.

DONKEYS, the curse of the few roadways the country boasts, are chiefly used for carrying goods. These descendants of the wild Somali ass are most picturesque, plodding along the trails hidden beneath their monstrous loads. The horses are used chiefly by the Galla tribe for riding. They were once reserved for the soldiers and for the popular village game of *gouks*, which resembles a medieval tournament. The mule, as in Old Testament times, is owned and ridden exclusively by important rural and provincial dignitaries. The local chieftain rides the mule to the Imperial Palace in Addis Ababa, followed by his trotting servants. To this very day it is not an uncommon sight to see such a local landlord coming into the capital to pay his taxes, trotting down the paved sidewalks on a mule decked out in bright trappings, servants close behind, and usually winded.

Although livestock, in the absence of controlled breeding, tend to be of low grade, exception must be made in the case of the camel, the chief beast of burden in the semi-deserts. This slow and surly animal has an extraordinary ability to go without water, to travel in dry sand, and to survive fierce dust storms. It is invaluable as a means of transport and as a source of food—milk, meat and blood. Swine are abhorred on religious grounds and so are uncommon. A source of fat in the diet, a useful scavenger, and a good producer of fertilizer is therefore

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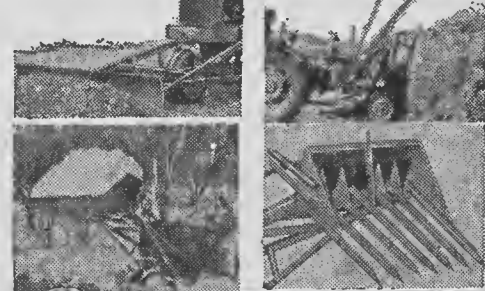
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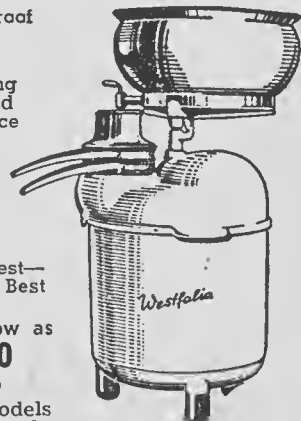
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completely neglected. The pity is that the Ethiopians cannot afford to neglect any of these.

Chickens are raised in small numbers to provide meat and eggs. In Galla country (the Galla are the largest single tribal grouping) they are raised to trade for provisions such as salt, matches and cloth. The chickens help keep the threshing floors clean and they suit the native disinclination to raise any animals, or fowls, which require tedious care. No attention is given to breeding, feeding and housing. Chickens, along with the animals, are brought into the huts at night to be safe from the prowling hyenas.

THE Ethiopians have learned a bitter lesson from the Italian occupation. Today, native possession of the land is guaranteed by Imperial decree, but this means that development of plantation agriculture and foreign concessions are discouraged. Consequently, all progress is very slow. The Ethiopian farmer has lived for centuries off the land, and sees no reason now for increasing his production or raising his own standard of living. Ethiopia is still a very isolated and inaccessible country, so it is difficult to make much of a case for more production in most farming areas. The people demand little from life, so even when little is produced, supply far exceeds demand. Then, too, there is plenty of land available and there is no over-crowding.

The Canadian farmer will be pleased to know that the direct descendant of King Solomon and the Queen of Sheba, Emperor Haile Selassie I, "Elect of God, King of Kings of Ethiopia, Fighting Lion of the Tribe of Judah," in the land proclamation of 1953, said that the land was a sacred legacy to be handed on to one's descendants. The conscientious farmer would not be satisfied until he could hand it on improved beyond its condition when he received it. V

Don't Give Yourself Away

A YOUNG man, born and raised on a farm, worked in a welding shop for a while and became expert at welding. He married, rented a farm, equipped himself with machinery and bought welding equipment, which enabled him to make farm machinery as good as new, out of old farming machinery. The welding equipment paid for itself in a very short time.

His neighbors were delighted. When they had something to fix they immediately went to this young expert, who was, so they said, "a fine fellow." They told other neighbors, who, in turn, told their neighbors. He was, indeed, "a fine fellow."

But most of us can endure so much and no more, and this young expert wondered how he might get out from under. He was not happy over the situation.

So he had a sign made: "Welding and Repairs—\$7 per hour."

That did it. Neighbors still call on him for help, but less frequently. They seem to be glad to pay for the work, and all in all, they appear to have a greater respect than ever for the young expert.—W. F. Schaphorst. V



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The Countrywoman

*If thou thinkest twice before thou speakest once,
thou wilt speak twice the better for it.*

—WILLIAM PENN.

Doing Something About It

THIS incident took place in the little town of Williams Lake in the Caribou country in northern British Columbia. The town is built near the lake—a very beautiful body of water ringed about by lovely tree-clad hills. The townspeople have not, in the past, made much use of the lake though it has a fine bathing beach and a good place for swimming.

Last spring there were a couple of drowning accidents in which the victims were unable to swim. One of the townswomen was lying in bed one night thinking sadly about the people who were drowned. If only they had been able to swim just a little so they could have kept themselves afloat for even a few minutes they might have been saved. She thought of that wonderful lake going to waste and suddenly she had an idea. Why not put on a learn-to-swim campaign?

The next day she baked an angel cake—from her favorite mix—and invited a group of women to come over in the evening. As they sat around the big dining table eating the cake and drinking coffee she told them her plan. *After talking it over pro and con they then agreed to work on it.*

The next step was to interview the town council and solicit their help. At first they got no co-operation, but they kept on asking that a public meeting be called. Perhaps the members of the council saw some merit in the scheme. Perhaps they got tired of being interviewed by the women singly, in pairs, or in groups. At last by reason of the women's importunity, they got the meeting. Many of the townspeople went and most of those present made a speech, perhaps two or three speeches. Finally an association was formed with the high sounding name of The Aquatic Club. The women who had started the idea were appointed to the executive. A collection was taken up, the Council voted some money and the campaign was on.

THE swim instruction course was to be put on during the summer vacation so they advertised for an instructor. As the time drew near they had about two up and as yet no instructor so the committee was almost in a panic. Finally a man was engaged and they breathed freely again, but on the very first day it became apparent that he was utterly incompetent. The committee had the unpleasant task of returning him as gently as possible to the ranks of the unemployed. Again began the search for a teacher. At last they were fortunate in obtaining the services of a young man—a member of the Vancouver teaching staff. He had worked with the athletic department and was well qualified to teach swimming.

The beach soon was a scene of activity. People came in cars, on horseback, on foot. The committee members helped by taking children to the lake whose families had no car. I spent the summer at Williams Lake and wondered how one man could possibly handle those crowds. It was amazing how well he did it by taking them in age groups. Some of the women who were good swimmers volunteered to assist by teaching the little ones. They told me they found it one of the most rewarding experiences of their lives. Little boys and girls who at first were afraid to put their heads under water, terrified to lift their feet off the ground, after a few days of kindly, sympathetic instruction would suddenly cry out, "I can swim!" The women were equally thrilled, sometimes moved to tears.

Before the summer was over, practically all the young people were good or at least fair swimmers. Henry Chester wrote somewhere: "Enthusiasm is

A report and a query as to how best to outline a suitable activity program for farm women's organizations in the years that lie ahead

by AMY J. ROE

the greatest asset in the world—set the germ of enthusiasm afloat and it means life 'virile' life—spontaneous, bedrock results, the vital things that pay dividends."

The Bible says, "Where there is no vision the people perish." These women had the vision and the enthusiasm to carry through.—Isabel G. Ringwood. V

Pointers on Programs

BETWEEN the point of decision that "something must be done about it" and the declaration: "we carried it through successfully," much may happen to any new project launched in a community. We may well rejoice with Isabel Ringwood and the little group of local women at Williams Lake. We trust that their example and the positive steps they took to win wider support, will inspire others, especially if they happen to live near some lake or river which has become a popular recreation spot.

The first stumbling block is usually the knowledge "that it is going to cost money" and the second is apt to be public and official apathy in the face of an undoubted need for "something to be done." These two factors enter to a greater degree into the planning and accomplishment of an organization on a provincial or national basis.

There is the necessity of gathering information from authoritative sources. This may come from interviews, reading of books, pamphlets, or following current news in the press or over radio broadcasts. Then there is likely a need for travel to other points and to conventions, to hear speakers and to enter into discussion, in order to thresh out the subject and to arrive at a decision. The time taken and the cost of these activities are considerable on a province-wide basis and there is the further matter of keeping all the members informed, which entails correspondence and copies of reports and perhaps printed matter.

Leaders must be found who are prepared to present and argue the case, prepare briefs to present to government or special committees. A leader of an organization in turn depends upon the studies made by committee members, and on the amount of money which the organization is prepared to allot to the work undertaken. Investment in experience for its leaders and its representatives is something that any worthwhile organization must seriously consider and provide for. This is particularly important for farm organizations, which in recent years have tended to break up into various camps, take new names and launch membership drives. The interested observer can not help but notice that time has brought many changes. There was a great growth in membership and activities of all organizations following the first World War as a result of the experiences in group work and because of the realization and feeling of individual helplessness in face of great forces. There was too, at least across the prairie provinces, a unity in purpose and aims, largely based on the problems of the grain farmer and his family.

Later there came more diversity in types of farming, a draining of leadership into the business of farmers' companies and into political movements, which tended to divide rural people in their thinking and loyalty. In the process of these changes the position and influence of women in membership

worsened, aims and projects became less certain and hard to define clearly. The story, of course, differs as among the various provinces, but the trend continues. No one province has tried to unravel the story or to assess the present position until recently.

In mid-summer 1955, the Manitoba Federation of Agriculture appointed a committee to enquire into and recommend concerning "a program for women's future activities within the organization," pointing out that there had been "evident need for a study of this nature for some time past" and that a study of the historical record would be made. During the past month, an 18-page report in mimeograph form has come to hand, prepared after many meetings and personal interviews. It was ably prepared by the secretary, Alice Shewman and makes interesting reading to those who have been interested in the development of farm organizations since 1918. In a sense it presents the picture in miniature form of farmers' organization problems.

That year marked the formal establishment of the Women's Section of the Manitoba Grain Growers' Association—which was in effect a "committee" of the main organization. But the women had their own organization, elected their officers, were responsible for increasing membership, forming locals, planning a program of activities, appointing committees, engaging their first paid-secretary and looked hopefully toward being granted a budget from funds available—once they had demonstrated their value to the organization. They met in separate session at the annual convention but joined in some of the general meetings. They first presented their resolutions and recommendations to the main body, before a change of policy or making representation to government.

It was their claim, one of which they were justly proud, that they had "their men behind them," which gave strength to their cause—be it reform in legislation in education, public health and welfare, library service or child immigration. They had their own special speakers on chosen topics and gained good training in taking part in discussions. Many of the farm women had previously been teachers or nurses and were quite able to hold their own in debate with some representative of government service. Perhaps outstanding was the point of "drops in the eyes of newborn infants"—stoutly opposed by a medical man in an official position in the health department. They won the argument and the practice is now accepted and approved by doctors.

THE women's sessions were in a real sense "nurseries" for social measures which gained general approval of the farm men and then of governments. They were training schools for women, teaching them how to plan and study, to speak "standing on their feet" and to the give-and-take of discussions. The egg and poultry pool in Manitoba grew out of the women's discussion of farmyard flocks and problems of marketing eggs and poultry—and a woman was named to the Board of Directors for some years.

To the MFAC's committee's point that: "There is an undercurrent of unrest among women membership in the organization today" . . . an evident need to give "direction to their program," the answer briefly may well be:

Give women responsibility within the organization.

Let them elect their own officers and committees.

Let them choose their own fields of study and projects.

Provide a budget within funds available for work and travel.

With leadership experience gained, they will be qualified to present a suitable program for farm women's future activities within the organization. V

Fair Lady Fashions

by PHYLLIS A. THOMSON

Highlight features in this year's fashion picture presented as a guide in buying or selection of designs for home sewing

ROMANCE is the key to the fashion world this spring. Fragile colorings, air-borne fabrics, flurries of flowers, laces and ribbons reminiscent of the Edwardian era highlight the new lady-like look. Styles are still slim but with a feminine softness not present last year. Fashion dictates that we will be wearing capes—full length, as a coat, or three-quarter length with dresses and suits. Hems are coming down again one-half to one inch and curves are showing up to give the sum total of truly "fair lady" fashions.

This year's silhouette is still marked by one continuous line from shoulder to hem but clothes are fitted with an easy grace and naturalness not present last season. Shoulders are soft and gently rounded, the bustline is smooth and high, the hipline softer and more natural. The waistline is back to its normal habitat in most outfits, although the raised waistline may be defined with an obi band or cummerbund. The "Dutch boy" look is the newest and most important addition to the fashion picture. Created by Dior, it is shown most emphatically in skirts and is created by inverted darts, soft pleats or fullness over the hipbone which tapers to a slim line at mid-calf. It is a smart style and should be becoming to more women than the pencil-slim styles of past seasons.

Fabrics are excitingly different this year. Silks are still the number one choice and appear in prints for spring and summer dresses, suitings, blends, surrahs, taffetas, crepes, raw and pure silk. Silk is first choice for dresses, costumes, coats—even sportswear, in skirt and blouse separates. Tweeds and wools being shown are woven so delicately they have an airy appearance. Tweed is apt to be a blend of wool, linen and rayon, silk and wool or perhaps cotton and rayon—the variations are endless. Fabrics this season have less bumpiness. Wools have been smoothed into basket or canvas weaves. Where the fabric is raised, it is in the form of a slub in tussah, narrow columns in whipcord and Bedford cord. Worsteds are still lively but they have a softer look in keeping with the fashion trend. There are flutters of chiffon, organza, georgette and sheer delicate synthetics.

FOR summer wear printed and plain cottons, silks and man-made synthetics are worn around the clock for play, dress, and for party wear. Checks, stripes, plaids, abstract designs and florals are popular again this year. Spring "pin" dots and water-color prints vie for top honors.

The gently rounded look is in evidence in coats, too, in the soft curved shoulder and full sleeves which taper to the wrist. Coat fullness comes from under the arm, indicative of the cape influence. Newest are coats with a straight classic line with detachable cape. Many coats flaring from shoulder to hemline are caught in back to give added fullness. Also in evidence are side pleats extending from shoulder to hemline. Some have

a half belt at the waist, giving the effect of an inverted pleat. Coats are feminine in detail and fabric, and come in soft pastel shades or delicate colored cashmeres and tweeds.

The big fashion news this year is suits. The silhouette is slim but not tight. Skirt lengths are about the same, perhaps slightly longer. Jackets are short, rarely below the hipbone except in fashions for the mature figure. The cape is of prime importance. Next is the semi-fitted waist-length jacket, shaped to follow the

natural lines of the body. The belted and slightly bloused jacket is also present and popular, as is the barrel jacket with bloused or gathered back. Boleros are still with us, sometimes just below the bust, sometimes extending to the waistline.

For tall women the tunic skirt is to be the spring suit favorite, with the panel front or back a close runner-up. The peg-top silhouette shows a new importance, retaining the basic slim line but allowing ease around the hipline. And there are some old-time

hobble skirts, the hobble achieved by cuffed bands at the hemline or slightly above. For teenagers, box suits are still fashion wise.

THIS year's costume is composed of dress and jacket, dress and cape or suit with accompanying three-quarter length cape. Usually the cape matches the dress or suit to give the all-in-one look, important this year. Many capes and jackets are lined with pastel-toned prints. Dresses are as gay and fresh as springtime. Many are similar to last year's styles but the bloused bodice and Dutch boy skirt are newest and most popular. Some have hoods that double for collars when folded down. There are small pointed collars, V-shaped, boat and cowl necklines. Often touches of white are used for emphasis. Shirtwaists have entered the fashion picture with renewed vigor but they have a softer appearance, in conformity with this season's look. All the important fabrics are used—silks, cottons, linens, corduroy, tweed, fine wool.

In order for the new styles to look absolutely right (or any styles for that matter) well-fitting under garments are essential. Each year the design of "underpinnings" is becoming increasingly important. This season's crop of foundations, bras, slips and crinolines are as pretty as they are comfortable—and as sensible. Besides the conventional white, black or pink colors there are blues, peaches and yellows in pastel and more intense shades. Girdles are now coming labelled and proportioned in misses' dress sizes from 10 to 20.

Basques and torselets are being made to wear with low-backed party dresses and sun togs. And although they dip deeper in the back they are carefully constructed to give exactly the same support as their higher-cut predecessors.

A good fitting bra is essential for smart appearance. As with other foundation garments, bras should be properly fitted by an experienced saleswoman. Two new features in bras are making fashion headlines—adjustable strap arrangements (halter, criss-cross, off-shoulder) so they can be worn virtually under any neckline and front closings for bras and torselets to make fastening easier.

SLIPS and crinolines come in a choice of shapes and colors to conform to what you are wearing. For bouffant skirts a full, be-ruffled crinoline is the right choice. But for slim skirts, pretty tailored slips with attractive but flat hem trimming keeps the silhouette slender. And since most slips show sometime, manufacturers are making them in lovelier colors and with more delicate trimmings for the occasional modest display.

Hosiery plays an equally important role in today's fashion story. The principal news is color. Dress stockings come in pale pastels with just a hint of color showing to wear with the new pastel dresses and suits. And even the neutrals have more color—



more gold tones in beige, more blue cast to the greys. Hosiery should be chosen with specific shoe colors in mind.

Hats are lighter in appearance and weight this year. The profile line is important and is shown in the high, narrow hats. The draped toque is one of the season's most important silhouettes while the beret, cloche, pillbox, breton and sailor all show the new romantic influence.

Hats of light, airy straw, lustrous braid, pliable strawcloth and Milan straw in pastel shades or darker tones harmonize with your outfits. Trim-mings are used lavishly with gros-grain ribbon, large velvet bows, jewel trims and flowers seen most often. Some hats are so bedecked with flowers they look like veritable flower pots!

SHOES are long and narrow this year with the closed pump again most popular and fashion-right accessory. Shoes this year are finely made, delicate and more feminine than ever. There's a brand new "needle" toe that gives a slender appearance. Heels are very slim and T-straps are more popular than ever for both play and dress shoes. For the spectator look, white and navy or white and brown are correct. After five shoes show the "mule" look. These are open-backed and open-toed with a wide band of fabric across the toes. Mules will be particularly important in summer fabrics and Italian straws.

Black patent leather is important this year, but with a textured grain for new surface interest. For a special effect some pumps are ribbon-laced, low over the vamp. All leather accessories this year are delicately colored. Baby blue, buttercup yellow, hyacinth, pearl grey and honey beige are some of the many new shades.

Handbags are long and narrow, with the tapered look the most important feature. Handles are often fashion details, with horseshoe, square and satchel shapes and simulated shell covering being predominantly styled. There are handbags in every hue and their textures echo pebbled or grained patterns seen in shoes.

Short "shortie" gloves are again popular but longer four- and eight-button lengths are being shown with many costumes. Whatever the length, practically all gloves this season are styled in washable fabrics.

In the jewelry world pearls are still the most important and "right" accessory for any occasion. Bib effects are perhaps the most outstanding novelty. Gold pins and earrings will play an important role, particularly in early spring fashions. Colorful ceramic jewelry is still high fashion and has a smart contemporary look. There is really no "new" style for jewelry—it is simply a revival of former styles and trends.

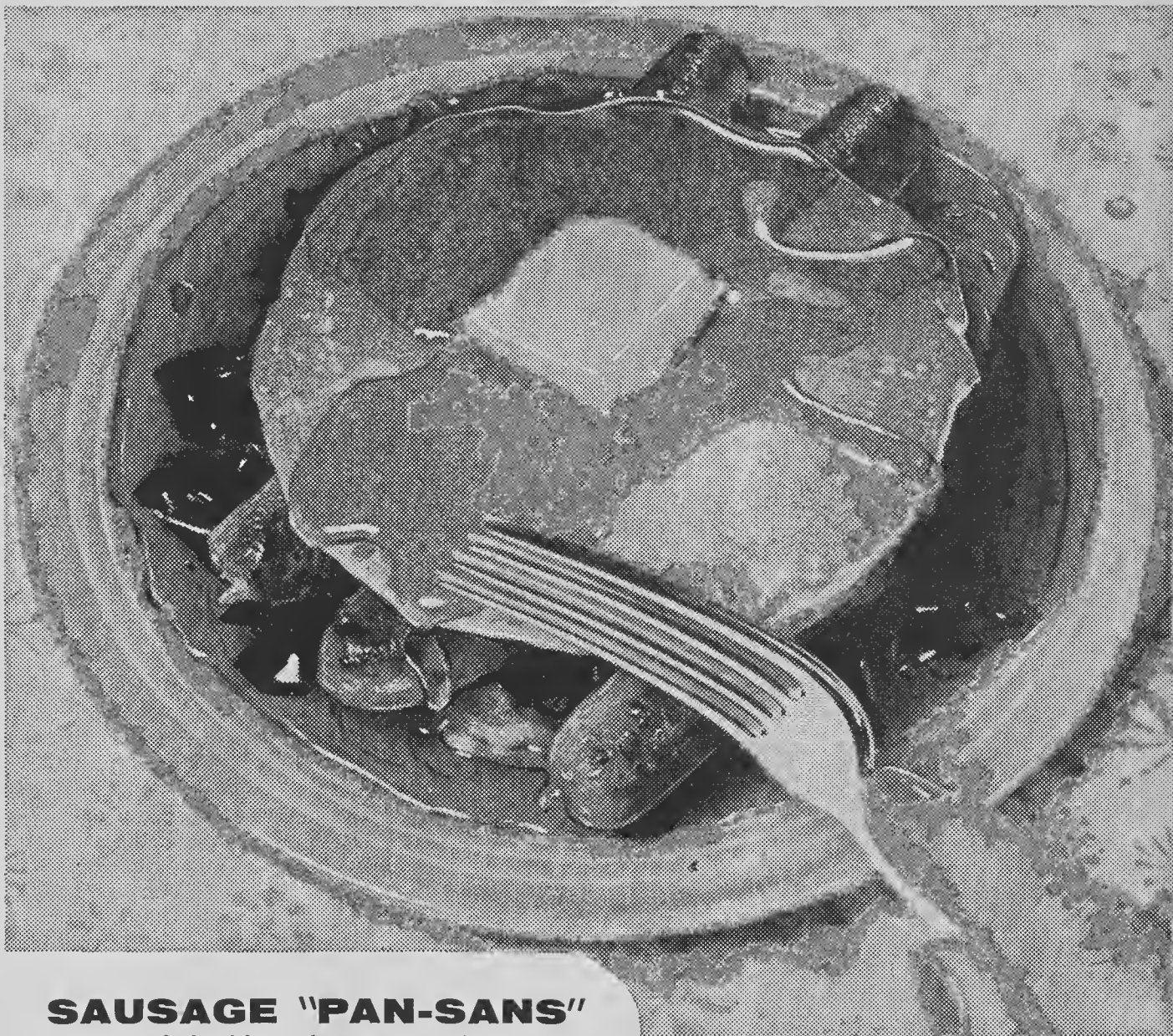
Children love surprises so I keep a surprise box for small children who come with their parents to our house to visit. In it I put novelties that come with cereals, balloons, picture cards, colored string, bits of ribbon, empty spools, and plastic toys. Our children enjoy the surprise box as much as their little friends, for it is new and different from their usual toys, and used only on special occasions like this makes it more interesting and fun to them.

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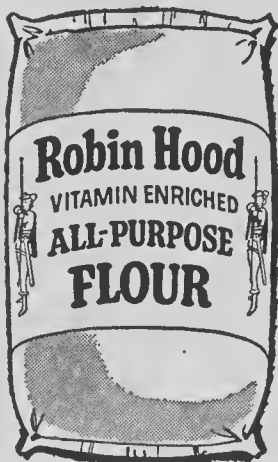


SAUSAGE "PAN-SANS"

As served for breakfast at the Empress Hotel, Victoria

3 cups sifted Robin Hood Vitamin Enriched Flour
6 teaspoons baking powder
1 teaspoon salt
1/4 cup sugar

2 eggs, beaten
3 1/4 cups milk
6 tablespoons melted shortening
1 1/2 lb. sausages
Red jelly
Maple syrup



BANDED BAG:

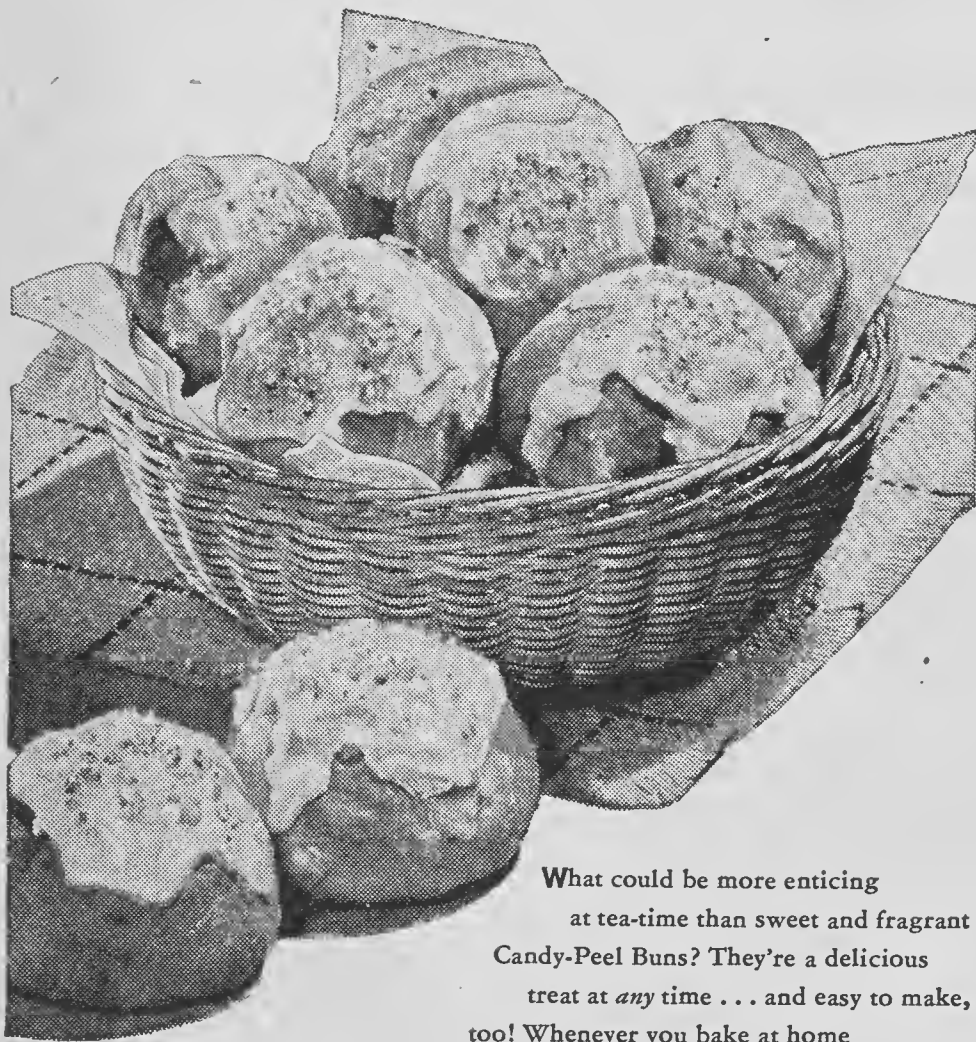
of fine quality cotton . . . paper label soaks off in minutes — no ink to wash out.

While sausages are cooking, mix and cook pancakes.

Sift dry ingredients together. ("Bake-Tested" Robin Hood Flour always blends so easily, smoothly. And it gives you *uniformly* best results, no matter what you're baking.) Combine milk, beaten eggs and melted shortening. Add all at once to dry ingredients. Mix only until dry ingredients are moistened. Batter will be lumpy. Drop onto hot griddle, greased for first pancake only. Cook until puffed and bubbly and underside is golden. Turn and cook on other side.

Sandwich cooked sausages and red jelly between two fluffy pancakes. Top with melted butter and maple syrup. Makes 20 pancakes or 10 "Pan-Sans" . . . most delicious you've ever tasted, or your money back — plus 10 percent!

Sweet-tooth treasures! CANDY-PEEL BUNS



What could be more enticing at tea-time than sweet and fragrant Candy-Peel Buns? They're a delicious treat at *any* time . . . and easy to make, too! Whenever you bake at home depend on Fleischmann's Active Dry Yeast for wonderful results *every* time. Surprise your family with *this* toothsome treat tomorrow.

CANDY-PEEL BUNS

Measure into bowl

1/2 cup lukewarm water

Stir in

2 teaspoons granulated sugar

Sprinkle with contents of

2 envelopes Fleischmann's Active Dry Yeast

Let stand 10 minutes, THEN stir well.

Meantime, sift together into a bowl

1 1/2 cups once-sifted all-purpose flour

1 teaspoon salt

2 tablespoons granulated sugar

Mix in

1/2 teaspoon ground cardamom seeds

Cut in finely

1/2 cup chilled shortening

and mix in

1/2 cup chopped candied peel

Combine

3 well-beaten eggs

1/2 teaspoon vanilla

and dissolved yeast.

Stir into flour mixture and beat until smooth

and elastic. Cover with a damp cloth. Let rise in warm place, free from draft, until doubled in bulk, about 1/2 hour. Stir down batter.

Work in an additional

1 1/2 cups (about) once-sifted all-purpose flour

Turn out dough onto a large square of cheesecloth; gather edges of cheesecloth together loosely and tie. Drop dough into a large pan of cool, but not chilled water and let stand until doubled in bulk, about 45 minutes. Remove dough from cheesecloth and place on a very-well-floured board or canvas. Form into a 16-inch roll; cut roll into 16 equal pieces; form into smooth balls. Place, well apart, on greased cookie sheets. Brush with melted butter or margarine. Cover. Let rise until doubled in bulk, about 25 minutes. Bake in a hot oven, 425°, 12 to 15 minutes.

Frost while warm with the following icing and sprinkle with chopped nutmeats.

Combine 1 cup sifted icing sugar and 1/4 teaspoon vanilla; add sufficient milk to make a stiff icing.

Yield: 16 buns.



Needs no refrigeration
Always active, fast rising
Keeps fresh for weeks

Sweet Rolls and Fancy Breads

Use a basic refrigerator dough to give you many new types of rolls and bread

by ANGELA FIELD

WHAT could be more appetizing than the fragrance of home-made bread or buns hot from the oven? Rolls made from a sweet refrigerator dough can take the place of cake for lunch or supper, particularly when spread with plenty of icing, jelly and butter. By adding fruit and nuts to the same dough you can make a coffee cake or a Swedish tea ring. These are fun to serve for morning coffee or afternoon tea and they'll be just as popular with the family as for parties.

If you don't wish to use all the dough at once, store the unused portion in the refrigerator. Brush the top with melted shortening, then cover to prevent dough from forming a crust. Stored this way the dough will keep perfectly for a week.

Surprise your family with different variations and shapes. Parkerhouse rolls are old favorites made from a circle of dough folded in half. Fantans are made from layered strips of dough cut in squares and turned cut-side up in muffin tins. Crescents, bow-knots, twirls and butterflies are made from strips of dough which have been braided, twisted or rolled into special shapes.

At this time of year Hot Cross Buns head the list of favorites. Originally they were sold on the streets of London on Good Friday. In Canada now the season starts on Ash Wednesday and continues throughout Lent. The buns are much the same as in 1250 — yeast-raised, touched with spices, raisins or currants and iced with a white cross. Hot Cross Buns are especially good when served piping hot. To do this put the buns in the top of a tightly covered double boiler and heat over rapidly boiling water for about five minutes. Or you may find it easier to place the buns in a paper bag, heating in the oven about five minutes.

Basic Sweet Dough

8 c. sifted all-purpose flour	2 1/4 c. water
2 pkgs. fast rising dry yeast	1/2 c. sugar
or	2 tsp. salt
2 pkgs. compressed yeast	4 T. soft shortening
	2 eggs, well beaten

Sift flour into large mixing bowl, make a well in center. Heat water to lukewarm. Take 1 c. water, add yeast and 2 tsp. sugar; let stand until dissolved (about 15 minutes). To remaining warm water in saucepan add salt, sugar and shortening. Heat until shortening dissolves. Cool. Add well beaten eggs and yeast. Mix well. Pour this mixture into well in flour and stir until liquid disappears. Finish mixing dough with hands. Form dough into smooth ball and place in well greased bowl, large enough to allow dough to rise at least one-third its bulk. Brush top of dough with melted shortening and cover with greased waxed paper and tight fitting lid. Place in refrigerator until dough has risen one-third. Dough may be used any time within one week. Remove just enough as needed then immediately replace in refrigerator.

Rolls

For a dozen rolls, use one-quarter of recipe and roll into a long roll. Cut off 1 1/2-inch pieces and shape into smooth round balls. Place in greased pan and let rise at 80° F. until light (about 1 hour). Bake at 375° F. for 20 minutes. Brush with butter after removing from oven. For crispy rolls place pan of boiling water in oven during baking.

Cinnamon Buns

1/4 basic sweet dough recipe	3/4 c. brown sugar
4 T. melted butter	3 tsp. cinnamon
	1/3 c. whole pecans

Grease 12 medium size muffin tins. Cover bottom of each with 1 1/2 tsp. brown sugar, 1/2 tsp. melted butter and 1/4 tsp. water. Place 3 or 4 nuts on top of mixture. With greased rolling pin roll dough out to form 9" x 12" rectangle 1/4 to 1/2 inch thick. Brush remaining melted butter over dough and sprinkle with remaining brown sugar and cinnamon. Roll up (Please turn to page 78)



Spicy fruit-filled hot cross buns are a family favorite at this time of year.

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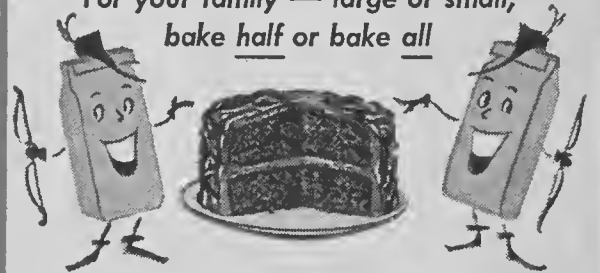
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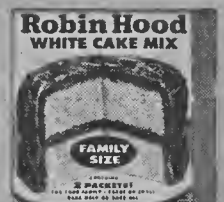
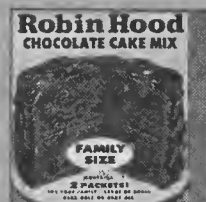
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51

Foods for Lent

Prevent mealtime monotony during meatless days with exciting new fish, cheese and egg recipes

DURING the Lenten season eggs, cheese and fish occupy the central theme in meal planning. There are so many satisfying dishes to be made from these foods that you need never worry about mealtime monotony. And they contain the same high quality proteins as found in meat.

In cooking cheese and eggs, just as meat, low temperatures help retain tenderness, flavor and an attractive appearance. Cheese and eggs are versatile, too. Their flavors blend well in many satisfying, easy-to-prepare dishes. One such combination is the Dairy Crisp Casserole, which holds special appeal for hearty masculine appetites. It combines tangy cheese and canned cream of mushroom soup. Buttery toast cubes lend a crunchy texture. For a crowning touch, arrange halves of hard-cooked eggs on top of the casserole.

Since fresh fish is already tender it is not necessary to develop tenderness through cooking. The chief problem is to retain the form of the fish. It must be carefully handled and not overcooked. For best results cook it just until the flakes separate easily.

Try using canned fish for variety. For a truly delicious meal serve Supreme of Tuna in a spring-like green rice ring. The ripe olives used in the creamed tuna and as a garnish for the ring enhance the delicate coloring and make the dish extra special. To round out the meal serve a crisp endive salad, thin butter sandwiches and your family's favorite sweet dessert.

Dairy Crisp Casserole

- | | |
|------------------------------|---------------------------|
| 6 hard cooked eggs | ¾ c. cubed process cheese |
| 1 can cream of mushroom soup | 2 T. green pepper |
| ½ c. milk | 3 c. toasted bread cubes |
| ½ tsp. paprika | ½ c. butter |

Heat mushroom soup and milk. Add cheese, paprika, green pepper and 2 c. toasted bread cubes which have been tossed in melted butter. Pour into buttered 1½ qt. casserole. Arrange egg halves on top. Top with remaining bread cubes. Bake in moderate oven (350° F.) for 20 minutes.

Supreme of Tuna

- | | |
|-------------------|--------------------------|
| ½ c. butter | ½ c. sliced ripe olives |
| ½ c. flour | 2 c. cooked white onions |
| 1 tsp. salt | 1 7-oz. can tuna fish |
| Few grains pepper | |
| 1 tsp. paprika | |
| ¼ tsp. rosemary | |
| 3 c. milk | |

Melt butter; blend in flour, salt, pepper, paprika and rosemary. Add milk; cook over low heat, stirring constantly until smooth and thickened. Add olives, onions and flaked fish; heat well. Serve in Green Rice Ring.

Green Rice Ring: Prepare 1 pkg. (1½ c.) precooked rice as directed on pkg. Add 1 c. minced parsley, 2 T. minced onion and ¼ c. melted butter. Form into ring on serving platter.

Egg Quickies

- | | |
|------------------------|--------------------|
| ¼ c. diced onions | ½ c. milk |
| 1 T. shortening | 1 tsp. salt |
| 2 c. soft bread crumbs | ¼ tsp. celery salt |
| 4 hard cooked eggs | 1 T. minced celery |

Brown onion in melted shortening. Add bread crumbs and milk. Stir, cook

slowly until thick. Add chopped eggs, seasonings. Spread on a plate to cool. Shape 4 large or 8 small patties. Pan-fry in melted butter until browned on both sides. Or dip in egg and bread crumbs and deep-fat fry.

Crusty Salmon Loaf

- | | |
|--------------------------------|----------------------------|
| 1 small loaf bread | ½ tsp. salt |
| 2 T. melted butter | Dash pepper |
| 1½ c. soft bread crumbs | 2 c. (1 lb.) canned salmon |
| Juice from 1 lb. canned salmon | 2 hard cooked eggs |
| ½ c. cream or evaporated milk | 3 T. chopped parsley |
| 1 tsp. mustard | |

Slice crusts from sides and ends of loaf and level off top. Cut out center leaving ½ inch around sides and on bottom. Place in moderate oven (350° F.) for 15 minutes; brush with shortening and put back in oven (425° F.) until lightly browned. Mix bread crumbs, juice from salmon, cream and seasonings. Place layer of salmon on bottom of loaf. Reserving two slices of egg for garnishing top of loaf, chop remaining egg. Cover salmon with half crumb and cream mixture; sprinkle with egg and parsley. Repeat until all ingredients are used; dot with butter. Bake in a hot oven (425° F.) for 30 minutes. Garnish loaf with egg slices. Slice loaf and serve with 2 c. well seasoned white sauce. Serves 6.

Friday Night Special

- | | |
|------------------------------|--------------------|
| 4 slices stale bread | ½ tsp. salt |
| ¼ lb. cheddar cheese, sliced | ¼ tsp. paprika |
| 2 T. minced onion | ½ tsp. dry mustard |
| | 2 eggs |
| | 1½ c. milk |

Pre-heat oven to 350° F. Cut bread slices into uniform rectangles, squares or triangles. In well-greased 1-qt. casserole arrange half of bread, then cheese; sprinkle with onion, salt, paprika, mustard; then add rest of bread. With egg beater, beat eggs and milk together; slowly pour over casserole mixture. Set casserole in pan of hot water. Bake 40 minutes or until puffy and knife inserted in center comes out clean. Makes 4 servings.

Shortcake Omelet

- | | |
|-------------------|--|
| 6 egg whites | 2 T. snipped parsley |
| ¾ tsp. salt | 2 c. creamed chicken, shrimp or cheese sauce |
| 6 egg yolks | |
| ¼ tsp. pepper | |
| 1 T. grated onion | |
| 3 T. flour | |



For a quick yet delectable supper dish serve Supreme of Tuna in Rice Ring.

Pre-heat oven to 350° F. Grease 2 8" layer pans; set in oven. With electric mixer or egg beater beat egg whites with salt until stiff but still glossy. Beat yolks until well mixed; add pepper, onion, flour, parsley; beat until thick and thoroughly blended; fold in egg whites. Spread mixture in hot pans. Bake 15 minutes or until knife inserted in center comes out clean. To serve: Invert one layer onto serving dish; spread top with small amount creamed mixture or cheese sauce; invert second layer on top. At table with 2 forks, cut or tear omelet into wedges. Serve with rest of creamed mixture. Makes 6 servings.

Spanish Deviled-Egg Casserole

- | | |
|-----------------------|----------------------------|
| 12 deviled egg halves | 1 can (3 c.) tomatoes |
| ¾ c. white rice | 1 tsp. sugar |
| ¾ c. butter | 1 tsp. salt |
| ½ c. minced onions | ¼ tsp. garlic salt |
| ½ c. minced celery | ¼ tsp. pepper |
| 3 T. flour | ½ c. buttered bread crumbs |

Make deviled eggs by first hard boiling 15 minutes. Promptly cool eggs under cold running water, then remove shells. Half eggs lengthwise, mashing yolks only. Cook rice as package directs. Start heating oven to 425° F. In saucepan saute onions and celery in butter until tender; blend in flour, then tomatoes; cook, stirring until thickened. Add sugar, salts and pepper. Arrange rice in 12" x 8" x 2" baking dish; pour on sauce; arrange deviled eggs in sauce. Sprinkle top with bread crumbs. Bake 10 to 15 minutes or until bubbly. Makes 4 to 6 servings.

Broiler Tuna Sandwiches

- | | |
|-----------------------------|-----------------------------|
| 1 can (7 oz.) tuna, drained | 1 tsp. Worcestershire sauce |
| 1 T. lemon juice | 8 slices bread, crusts off |
| ¼ c. chili sauce | |
| ¼ c. mayonnaise | |

Combine spread ingredients. Toast one side of bread (use broiler for fast toasting job). Butter untoasted side. Top buttered side with spread. Place in broiler rack. Broil about 5 inches from source of heat until bubbling. Watch carefully or sandwiches will scorch.

Salmon Salad Surprises

- | | |
|----------------------|-------------------|
| ½ lb. can salmon | Cooked peas |
| 1 pkg. lemon gelatin | Tomatoes |
| 1 pt. boiling water | Lettuce |
| | 1 hard boiled egg |
| | French dressing |

Dissolve gelatin in boiling water. When cold put a shallow layer in bottom of mold. When partly set, add sliced hard cooked eggs and sliced tomatoes. Fill mold with alternate layers of canned salmon, cooked peas and cold gelatin. Serve on bed of lettuce, garnish with tomatoes; add French dressing or mayonnaise. Serves 4.

V

My Father and the Radio

by GEORGINA H. THOMSON

His choice of program was not always ours—market reports, news, fights and serial dramas had their special place, while old tunes released long, long memories

FATHER loved the radio. I do not think anyone ever got more sheer pleasure from it than he did. He was never a great reader and as he grew older his eyesight gradually failed; the world of print was lost to him except for what we read him. Though it was in the depression years and hard enough to make ends meet, we bought him a little mantel radio on the instalment plan, something like \$5 down and \$3.99 a month. Never was money expended to better purpose.

Father soon learned to find the different stations on the dial without looking. You might think he was dozing in his big chair, but he was well aware of the time, and would reach up to the radio and turn the dial to the program he wanted.

Father's choice of program was often not ours. Every day when we sat down to our noon dinner, he would turn on the farm market prices, and we began our meal to the accompaniment of such announcements as "Can-ner and cutter cows steady; butcher steers that have had grain with grass selling readily; good trend for medium to good sausage bulls." Somehow it always conjured up a picture of frightened animals milling around the stock-yards, and tended to take away our appetite. But it was natural that Father, as a retired farmer, should still take an interest in such items.

Then came the soap operas! Pepper Young's family and Ma Perkins and her troubled brood, were our unseen but very much-heard guests at hundreds of noon meals, while Papa David endeavored for years to prove to us that in spite of all, "Life can be beautiful." These people seemed very real to Father, and he entered into all their joys and sorrows. During the noon farm program in which the radio play "The Jacksons" appeared, he would sit chuckling and say, "That Mrs. Somerville and Dick Jackson are always chewing the rag." When the actor who took Dick Jackson's part was changed, Father was pretty much disturbed, and when the play came on, he would say angrily, "That isn't Dick Jackson!"

In one of the soap operas where a gangster shot one man and carried off another, while the latter's wife sobbed hysterically and tried to stop him, Father got quite excited and declared, "If she's just acting up that part, she sure does it good!"

THE Charlie McCarthy program was one of his favorites and though he actually knew that Charlie was just a dummy, he always resented it if Charles Laughton or Don Ameche or anyone else made insulting remarks to him, referring to him as a piece of wood or a tree.

On Friday night Father always had the "fight" on, and I really mean "on." He wasn't deaf, but he seemed to enjoy a program more if it were turned on "good and loud." "A right to the body and another jab to the

chin. Jones feints a left to the mid-section, hooks a right hand to the body wide of the mark. They go into a clinch and the referee gets them apart. The bell rings and the first round is over." If it was a championship fight, Father would call up an old crony before it started and make a bet with him on the winner, to give an added zest to the program.

Father was an inveterate dial twister. He would tire of a program and turn to something else in the middle of a sentence. It didn't worry him a bit if he did not get exactly onto the station to which he turned. As soon as he heard something he liked he would stop anywhere near the fringe of it, turn the volume up and thus accentuate the resulting rasps and crackles. It might be a lurid mystery or western story roaring away so that in spite of ourselves our attention would wander from our books and we would find ourselves listening to the tale. Then in the middle of an exciting episode, Father would reach up and turn to another station. If we protested, he would say blandly, "Oh, I thought you did not care for that kind of program!" and we would be left forever ignorant of the fate of the hero.

FATHER did not like classical music. "Some more of that foreign stuff," he would say if grand opera came on, and hastily turn the dial. If anyone objected, he would say, "Do you like that stuff?" and go stomping out of the room.

When I finally decided to get a little radio for my room so that I might hear some of the music I liked, Father asked indignantly: "What's wrong with *this* radio?" Yet he did enjoy certain types of music. When the old-time dance program was on, he would sit and keep time with his hand on the arm of his chair, and sometimes even after he was 90 he would get up and waltz around the room, turning and reversing in the stately way he had learned as a young man. He enjoyed good singers too, and had his own criterion for judging them. "That man has music in his voice," he might say. We did not know just what he had in mind, but quite often his opinion would be borne out by the critics. He always enjoyed "Eventide," a religious program from Vancouver, and would say, "They have good singers out there."

Father enjoyed talks more than music. He listened to the news several times a day and was quite well-informed on all questions of the hour, even in the larger international topics. He loved to hear the great speakers and would say when I came home from work, "Churchill is going to be on tonight,"—or Roosevelt or Brockington or some other orator. He would listen to them intently.

He enjoyed political talks, and election time was a real field day for him. He would listen to the speakers of every party even though he always

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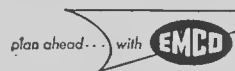
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voted Conservative to the end. On election nights we would have us make a list of all the candidates, and during the radio announcements we would take down the votes recorded for each. He would stay up quite late to find out who got "in," and when he did give up and go to bed we had to keep him posted as the later results came in. His interest extended to the British and American elections as well as our own.

As Father grew older, often a tune or news item would stir some memory and he would turn the dial down and tell us about it. Someone was singing "When You and I Were Young, Maggie," and Father would turn it lower to tell us about the first time he heard that song. He was just a little boy and his mother and sisters were boiling applesauce in a big pot over an outdoor fire, as they used to do in Ontario long ago. His cousin Maggie came walking through the woods to see them, squired by Jim Richardson who had a very fine voice and later succeeded his father as precentor in the Stanley Street Church at Ayr. As they sat around the fire, the young

people sang "When You and I Were Young, Maggie." Father had never forgotten how sweet it sounded in the autumn evening air, long ago.

One night on the old-time program there was a very lively schottische, and Father turned it down to tell us how he had often danced to it when he was a young man. His friend Hugh Wallace played the fiddle for dances, and he liked to take Father with him for company. He said Hugh would play all night if they wanted him to, with just a spell off for a waltz, when an old fellow would play the accordion in his place.

Father would turn the knob of the radio and a gay tune filled the room. He sat, with his almost sightless old eyes closed, and a smile on his face, his foot tapping the floor, in tune. In his mind he was back, whirling round and round to the sound of the fiddle, with other gay lads, and pretty girls in long dresses with tiny waists and bustles . . . Yes, it was the old, old tunes which stirred memories reaching back for him over three-quarters of a century. V

Brief Good-Byes Are Best

by VERA FIDLER

DO you know how to say good-bye? The last memory you leave with another person is the one that will remain until your next meeting. So, why try, as we all do, to make a good first impression, then spoil it by a prolonged good-bye that leaves a poor last impression?

No hostess is left with pleasant thoughts of your visit if she has to stand shivering in the open door while you utter last-minute trivialities. And, at the end of an evening, it isn't fair to steal precious minutes which could be used for sleeping. When you are leaving a person's house, express your thanks, say good-bye—and mean it. Don't linger. No matter how pleasant the time together has been, a long, drawn-out leave taking can cause others to lose interest in you and, let's face it, they breathe a sigh of relief when you are finally gone. So, make it a friendly, clean-cut parting and the chances are good that you will be invited back.

When visiting a sick person, a quick good-bye is even more important. In the first place, never stay too long and when you are ready to leave, no afterthoughts. If all hasn't been said, let it wait until another time. It is a strain for an ill person to have a visitor getting up, then sitting down again, standing above them by the bed, or lingering at the door.

Another time when "Hello" and "Good-bye" should come close together is when you go to somebody's house on an errand. Don't, just because you are invited to come in, spend an hour or two talking. When you say, "I can stay only a minute," stay just that long. There is nothing quite as tiresome as somebody who is on the verge of leaving, but can't quite make it.

When you are on the phone, how many times do you say, "I'd better hang up now," before you finally do it? Unless you are sure that the per-

son to whom you are talking wants to have a long chat, don't keep thinking of "just one more thing." You don't want to be the kind of person whose friends dread calling because "She talks so long." Here again, when you say good-bye, mean it and suit the action to the words.

It isn't only in your social life that brief good-byes are in order. Suppose you go into an office to apply for a job. You want it very much and you have carefully chosen the right clothes, applied just the right amount of make-up and had your hair done. You enter your prospective employer's office with confidence and answer his questions with courtesy. You feel that you have made a good impression, then you spoil it all by an awkward leave taking. You fumble with your gloves and purse and chatter unnecessarily. This may cause the other person to become impatient with you and perhaps decide that you are not the one for the job. So, when you are finished with the business at hand, get up and leave, making your exit not too abrupt, but graceful and sure.

A good rule to remember in all situations is that when you phone or go to see anybody, that person does the welcoming but out of politeness cannot say the first good-bye. That is up to you. The word "good-bye" is a contraction of "God be with you," which gives it a special meaning and dignity. Use it as it should be used, with sincerity, and with finality. Then you will never be referred to as a person who leaves "minute by minute and inch by inch," and the last impression you make will be as good, if not better, than the first. V

* * *

When you only need a few drops of lemon juice, I make a few holes in the lemon by pricking it with a fork, instead of cutting it in half. By doing this I can use the lemon several times making it go much farther. V

Sure and It's a March Party!

And it's a touch of color you'll be needing as well as games, music and some silly ideas to add hilarious fun to the whole affair

by RUTH GILL

MARCH is a mad, impulsive month . . . a time when blizzards give way abruptly to gentle chinook winds, or vice versa. But these may also be the last free days before spring work begins in earnest, so have trust in the weather and roads and call friends together soon for a "coming-out-of-winter" party. Mix together a pinch of St.



Patrick's Day, a spice of Spring's first day, Mad March Hare antics, and even a touch of All Fools' Day, and it's a fine March party ye'll be havin'!

For a school dance, the classroom could be decorated with fluffy, fat pussy-willows collected by the students. Add some cardboard four-leaf clovers, a wild-eyed rabbit, and imitation spring blossoms. Green might be the room's predominant color in honor of St. Patrick, but yellow and perhaps mauve should appear in salute to spring. The orchestra members would play chiefly Irish melodies, then, to emphasize the April Fool facet, occasionally break into a Scottish tune.

"Introductions" will help get the party off to a brisk start. On entering, each person receives a numbered tag to wear. On the back of each tag is written a command such as "Introduce yourself to No. 32," "See that No. 9 meets No. 24," "Discuss the weather with No. 25," "Meet No. 13 and ask him to join No. 50 and discuss vacation spots." There'll be no wallflowers after this ice-breaker.

Throughout the evening the master of ceremonies may interrupt dancing at intervals for a St. Patrick's Day game, such as "Pig-sticking":

Ten men receive green toy balloons with strings attached, and ten girls are given sharp-pointed sticks about two feet long. The men line up, having received instructions that the balloons, or "pigs," must be kept at floor level as much as possible. The girls

line up about three feet behind and parallel to the men. At a signal the men run, girls charging after, endeavoring to "stick" a pig. After the start, the men can adopt any tactics they choose to protect their pigs, but must keep them near the floor. The man whose pig survives ten minutes receives a prize, as does the girl who has stuck the most pigs. Prizes could be china piggy-banks containing 17 new pennies.

It is presumed lunch will be served by the ladies of the district, making tea and coffee there, necessitating the washing-up afterward of cups and saucers. The dance could be given a further Mad March kick if the dishes were washed but not dried. Instead, divide the lot evenly and pile on two trays. The master of ceremonies then announces this game:

"Married against Single": Single men line up parallel to a line of married men, same number in each line. Put a pan of wet dishes, exactly the same, at top of each line. Give the leader a dry towel and start him off by telling him he must wipe one dish dry, take it down to the end of the line and put it on a tray, come back to his place and pass the towel to the next player. Prizes aren't necessary for this game, actually just a trick to shift part of the dishwashing responsibility to the men.

Perhaps it has been decided to make your next club meeting a St. Patrick-Spring affair. The hostess in-



troduces the mood by decorating her tea table with crepe paper runners, placemats or tea-cloth in green, yellow or mauve. Flowering plants would give a splendid spring touch; or, if a neighbor has a shamrock plant perhaps it could be borrowed for the centerpiece.

White marshmallows can be used as place markers. Simply draw eyes, nose and mouth on one side in green ink, lettering the name across the back. If you want to give the marshmallow lady a spring bonnet, place a small plant leaf on her head with a bright candy atop that.

To liven up proceedings at conclusion of the regular meeting, how about an Irish game?

It's a long way to Tipperary, they say. In this case the road is a narrow green crepe paper streamer laid on the floor and wound in and out of rooms, upstairs, downstairs, and

finally into Emerald Isle, the living-room.

The ladies pick numbered shamrocks to find their places in the parade, then off they march, led by the hostess. The journey is made uncertain by slips of white paper pinned to the green, which when the hostess calls "Halt" must be read by the person standing over it. Instruction may be "Next 50 miles by airplane—move up five," but more often "Flat tire—move back three," or "Break-down—go to end of line." At journey's end the person marching behind the hostess wins.

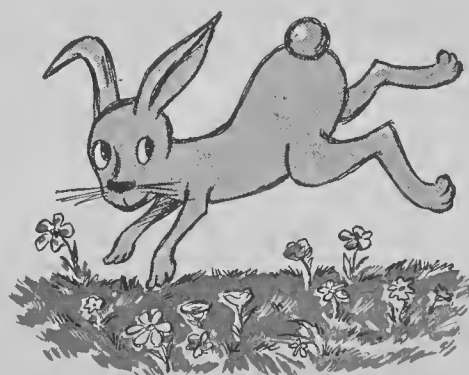
Now the ladies can amuse themselves at an April Fool fishpond where most of the envelopes pulled out will be empty, save for the words "April Fool." Five envelopes could hold symbols predicting the future—i.e., wedding ring, piece of money, theatre stub, portion of a map, or picture of a baby.

While the hostess is completing tea arrangements, someone could organize a Spring Flower quiz.

The ladies are paired off, each couple receiving a list of the following questions and a pencil, and requested to mark down the proper answer from the flower names written on slips of paper pinned up around the room.

1. I planted sleep; what came up? (Poppies)
2. I planted contentment; what came up? (Heartease)
3. I planted a part of the day; what came up? (Four-o'clock)
4. I planted a kitten; what came up? (Pussy-willows)
5. I planted some steps; what came up? (Hops)
6. I planted a box of candy; what came up? (Candy-tuft)
7. I planted a sermon; what came up? (Jack-in-the-pulpit)
8. I planted a lover's plea; what came up? (Forget-me-not)
9. I planted grief; what came up? (Weeping willows)
10. I planted a dark-eyed girl; what came up? (Black-eyed Susan)
11. I planted Cinderella at midnight; what came up? (Lady slippers)
12. I planted an amiable man; what came up? (Sweet William)

(Please turn to page 76)



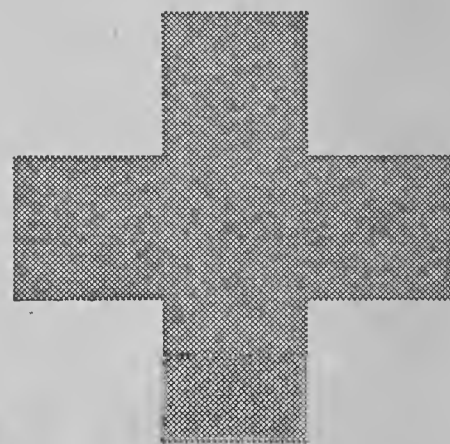
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For tea the hostess could serve shamrock-shape sandwiches, filled with minced ham and dressing; pickle "pigs" with toothpick legs; green celery; and a light cake iced-white with green trim.

If a children's party is planned, bunnies should be added to the decorations. To give the affair a "mad" touch and set the kiddies in a good mood when action seems to lag, introduce this game:

"Laugh a little": The players sit in a circle with one in the center as leader. The leader should have an easy, natural, and infectious laugh for it is his duty to start the game. When the leader tosses a handkerchief into the air everyone must laugh. As soon as the handkerchief hits the floor all laughter must cease immediately. Those guilty of even the faintest little snicker or chuckle must leave the group. The one remaining in the circle for the longest period of time is named winner and awarded a prize.

For an adults' party, when three or four couples only will be present, the hostess can go to great lengths to introduce a "mad" atmosphere. The house can be topsy-turvy, pictures face to wall, chairs back to table, and the guests could be asked to wear one black shoe and one brown, the women wear their blouses backwards, and the men have their ties on backwards, a green tie 'tis hoped.

The group could then go "Touring the lakes of Killarney." Large squares of green cardboard marked with the names of well-known Irish lakes are placed on various parts of the floor. Guests form a conga line and follow the leader around the room to the tune of any Irish reel. The music is stopped, and the persons who find themselves in the middle of a lake are drowned and out to the morgue they go. The last survivor is rewarded with a package of Life Saver mints.

Another interesting game for a small group is "Corks." Eight corks

(or as many as you have guests), eight pieces of twine a foot and a half long, and a saucepan are all that is required. Pieces of string are tied to the corks which are then placed in a pool in the center of the table, guests sitting around it, each holding an end of the string attached to his cork.

The banker, whose currency consists of chips, holds the saucepan by the handle. Suddenly, without warning, he brings the saucepan down with a bang to trap the corks. Eight players yank their strings. Those who do not withdraw their corks in time are captive and required to pay the banker a sum in chips agreed upon before the game. Those who escape with their corks are paid by him — doubly. This game can be played for hours and is quite hilarious. V

Kindergarten of the Air

FOLLOWING the appearance of article "Link Between Cradle and School" which appeared in the February issue, we have received many letters from readers making favorable comment, asking questions about kindergarten correspondence schools. Some mothers of small children responded to the invitation to tell of personal experiences in using the CBC program "Kindergarten of the Air."

One such letter came from Mrs. C. Hodgkinson of Elnora, Alberta, who writes: This is the way I found how my small three-year-old daughter reacted to it. When she was about seven months younger, I started drawing her attention to it, when I turned the program on. For some time, it meant almost nothing to her, unless I kept prodding her a bit to listen. Then I noted that her interest was growing.

She began by fetching her little chair, to sit close to the radio. When the "teacher" gave simple commands such as "stand up, jump on your right leg — hop around the room," etc., she was shy and self-conscious and I would have to go through the actions with her, before she would attempt them. As time went on, she began trying out the "duty" alone according to instructions given — as long as I wouldn't watch.

Now, at this point she is going ahead by herself, as busy as can be, doing the things the teacher tells them to do, — in her own small way. She has learned "what the clock looks like," when it comes time for Kindergarten of the Air which is 10:30 a.m. M.S.T. here. I hope that having this experience, my little girl will have an easier time, when the day comes for her to start school and take instruction from a teacher. I realize that she should have companions but in our case, the only other child is a boy of ten years. So we do the best we can and to all appearances she has benefited by the program. She has many books, which she already loves.

I have a close neighbor who has four small boys (two in school now). They have all been brought up on Kindergarten of the Air. Whenever possible I give this program a boost because it seems to suit the thoughts and actions of small people between the ages of three and six. V

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by ANNA LOREE

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What could be more appropriate for your Easter table center than a mother hen with her young chicks? You will want to make several of these for gifts; they would make fine toys for the kindergarten crowd. Materials required: 2 balls white, 1 ball yellow speed-cro-sheen mercerized cotton, No. 2/0 crochet hook, small pieces of red, black and orange felt, cotton batting for stuffing and small wicker basket. Design No. C-P.C. 8142. Price 10 cents.



No. S-4428

A crisp white pique collar with a cluster of spring "posies" will give you something extra special for a very modest sum. Young students and business girls will welcome this posy collar to give sweaters, blouses and dresses the fresh look of spring. Make several with different colored flowers to match various outfits. It's a splendid gift idea too. Materials: 1/4 yard white pique, 36 inches wide, small safety pin, artificial flowers, 1/2 yard white or ecru lace, 2 inches wide, white bias binding, sewing thread. Design No. S-4428. Price 10 cents.



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You will be all set for the Easter parade with this gay checkerboard handbag. Crocheted from vari-colored square motifs the bag works up quickly and easily. Choose colors to harmonize with your new spring outfit or brighten last year's costume with lively new shades. Note: each motif measures 1 1/4 inches square. Materials required: 4 balls black, 1 ball red speed-cro-sheen cotton, No. 0 crochet hook, 1/4 yard each buckram and felt, small padlock and key, heavy card-board. Design No. C-S-462. Price 10 cents.



No. C-S-643

Here is a jewelled fez to make for your spring "bonnet." Designed for the young-at-heart, it shows the tall, profile silhouette so important this season. A scalloped strip gives an exciting textured look and the pearl trim completes the feminine decoration. Why not make the hat to match the checkerboard bag? Materials required: 3 balls speed-cro-sheen mercerized cotton, No. 2/0 crochet hook and pearl drops. Design No. C-S-643. Price 10 cents.

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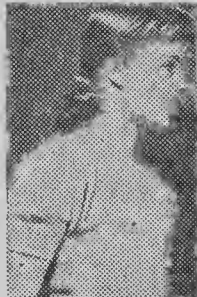
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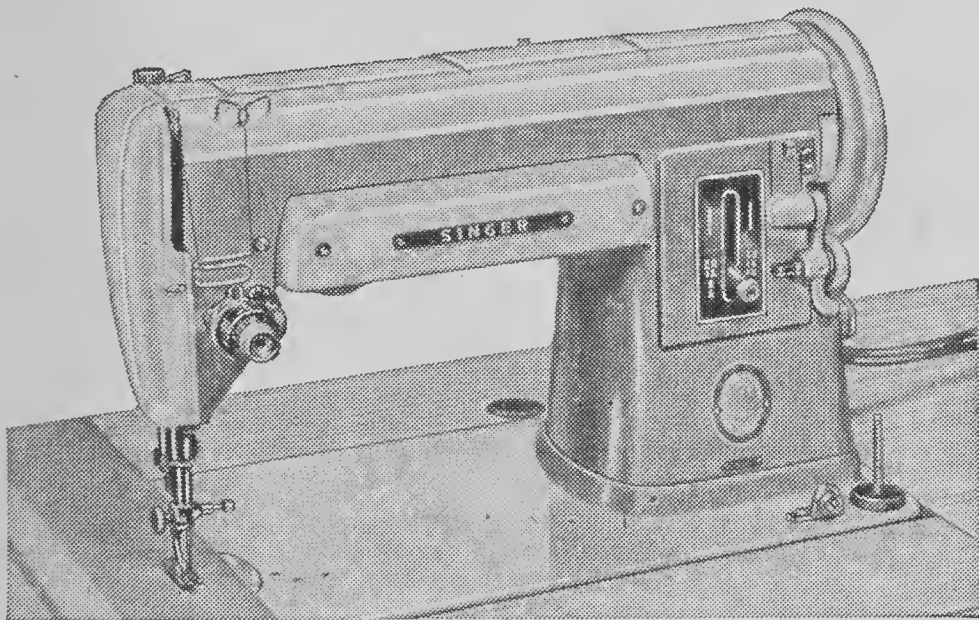




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Sweet Rolls

Continued from page 70

like jelly roll and slice into 12 1-inch pieces. Place dough, cut side down in muffin tins. Cover and let rise at 80° F. for about 1 hour, or until dough is almost double in bulk. Bake at 375° F. for 20 to 25 minutes. When baked, turn tin upside down on rack to let syrup run down each roll.

Hot Cross Buns

$\frac{3}{4}$ c. milk	$4\frac{1}{2}$ c. sifted all-purpose flour
$\frac{1}{4}$ c. butter	
$\frac{1}{2}$ c. sugar	2 eggs
1 tsp. salt	$\frac{1}{2}$ c. raisins
2 tsp. sugar	or
$\frac{1}{2}$ c. lukewarm water	$\frac{1}{2}$ c. currants
	or
2 envelopes fast rising dry yeast	$\frac{1}{2}$ c. chopped peel
or	$2\frac{1}{2}$ -3 tsp. cinnamon
2 cakes compressed yeast	$\frac{1}{4}$ tsp. cloves

Scald milk, add butter, sugar and salt and cool to lukewarm. Dissolve 2 tsp. sugar in lukewarm water and add yeast. Let stand 10 minutes; stir well. To milk mixture add $2\frac{1}{2}$ c. flour. Then add yeast, well beaten eggs, raisins; mix well. Reserve $\frac{1}{4}$ c. flour for flouring board during kneading. Add cinnamon to remaining flour, sift and gradually add to batter. Flour board with portion of $\frac{1}{4}$ c. flour. Turn dough out onto board and knead until all of remaining flour is used up and dough is smooth and elastic. Kneading takes about 5 minutes. Place dough

in lightly greased bowl and brush top with melted fat. Cover with waxed paper and let stand 2 hours in warm place at a temperature of 80°-85° F. or until dough is doubled in bulk. Punch down lightly, folding edges to center. Divide into 24 to 28 equal portions. Shape each portion into a ball by lightly drawing edges of dough under to form a smooth top surface. Place them on greased baking sheet, 2 inches apart and let rise three-quarters of an hour to one hour in a warm place until double in bulk. Bake in moderately hot oven 375° F. 20 to 25 minutes. Yield: 24 to 28 buns.

To Make Crosses: Using a sharp knife, barely cut through surface of bun, forming a cross. Brush bun with melted butter or beaten egg blended with 1 T. water and bake. After baking, make cross on surface with icing sugar moistened with milk or cream.

Hungarian Coffee Cake

$\frac{1}{4}$ basic sweet dough recipe	1 tsp. cinnamon
$\frac{1}{2}$ c. melted butter	$\frac{1}{2}$ c. finely chop- ped nuts
$\frac{3}{4}$ c. sugar	

Cut dough into pieces the size of walnuts. Form into balls. Roll each ball in melted butter then in a mixture of sugar, cinnamon and nuts. Place one layer of balls so they barely touch, in a well-greased 9" tube pan. Sprinkle with a few raisins. Add another layer of balls, sprinkle with more raisins, pressing them in slightly. Let rise 45 minutes. Bake at 375° F. for 35 to 40 minutes. Loosen from pan. Invert pan so butter-sugar mixture runs down over cake. To serve, break apart with two forks.

Homemaking Ideas

by **BLANCHE CAMPBELL**

If you do not like the idea of paying your child for making good marks in his grade at school, and yet you want to show him that you are proud and happy that he did, show your appreciation by celebrating this event. Make his favorite cake in honor of his bringing home a good report card. Take a little extra time in decorating his cake. I baked a luscious spice cake, icing it with fluffy white frosting and decorating it with a large "L," the initial of my son's first name across the top. Children love a special celebration, especially if their names are connected with it. Children often will more than double their efforts if a fair measure of praise and attention comes their way.

I have found that toothbrush sets make gifts for youngsters on your birthday or Christmas list. Buy one of the pretty, colorful, plastic tumblers and a little matching toothbrush for each child. These tumblers may be bought at the dime store. To personalize each gift, oil paint the child's name on the surface and finish with a free hand design. Mothers will appreciate this gift too for it encourages the tooth-brushing habit.

When it is necessary to carry baby in your arms, you can protect him from the weather, such as rain, snow, and sleet and protect your own clothes from gathering lint from his blanket by wrapping a small plastic tablecloth around his blanket. You will arrive at your destination without that unsightly fuzz showing up on your dark dress or suit.

You can make the puffed sleeves on your little girls' dresses much easier to iron. Just put a hook and eye on the elastic that goes into the puffed

sleeve. Then the elastic may be removed each time the dress is washed, and the flat sleeve will be much easier to iron. After ironing the elastic may be replaced.

To keep children's wool sweaters from sagging on the shoulders, sew a length of ribbon to the inside along the shoulder seam. This ribbon should extend from the neck band to the sleeve seam. Cut the ribbon to fit the child's shoulder width.

The small piece of stiff gauze that comes from adhesive tape bandages makes excellent reinforcement for buttonholes. Just slip it between the two layers of material and proceed as usual. You will be surprised at what nice buttonholes it enables you to make.

To neatly mend a small tear or snag in a good wool suit, pull several long threads from the inside seams of the suit itself. This matching thread allows you to make an almost invisible mend.

Don't be guilty of opening bobby pins with your teeth. You are certainly taking a chance on ruining your teeth if you do. You can easily learn to open them the right way, by pressing them against the cushion of an index finger. It really takes no more time this way and saves your teeth.

An ordinary shoe box is an ideal place to store jelly jars. Fill each shoe box with the filled jelly glasses and label the lid of each box. This saves the trouble of labeling each individual glass and makes a dust and dirt proof storage place for your jelly. Where space is crowded these boxes may be placed one on top of the other. ✓

Suddenly It's Spring



No. 1945—Right for any occasion is this stylized "sack" dress. Brighten with jewelry, scarf or cummerbund for special event. Features: shawl collar, drop sleeves, stitched front panel and straight back. Note—there is no waist seam; bodice and skirt are in one piece. Sizes 11, 12, 13, 14, 15, 16, 18. Size 14 requires $3\frac{1}{2}$ yards 36-inch material. Price 35 cents.

No. 1944—This year's fashion silhouette—graceful sheath with softly molded cape. Dress has rounded neckline, drop sleeves, empire waist, inverted pleats over hipline, self-belt or draped cummerbund. Matching cape has pointed collar, tab pockets. Sizes 11, 12, 13, 14, 15, 16, 18. Size 14 requires $3\frac{1}{2}$ yards 36-inch material for dress and cape. Price 50 cents.

No. 1959—Here is a basic surplice-line dress with quick-change appeal. Features V-neck, cross-over bodice, elbow-length sleeves, slim skirt with inverted darts at hipline. Variations are cape and two styles of detachable collars and cuffs. You will love this dress in ever-popular navy and white or one of the new pastel shades. Sizes 12, 14, 16, 18, 20, 40, 42. Size 18 requires $3\frac{1}{2}$ yards; cape $1\frac{1}{2}$ yards (both 36-inch material). Price 50 cents.

No. 1980—An Easter outfit for the young man of the family—short or long trousers with matching or striped blazer. Trousers have single pleat on each side of fly front, belt loops and slash pockets. Single-breasted jacket features revere collar, patch pockets, straight back. Sizes 2, 4, 6, 8, 10. Size 6 requires 2 yards 54-inch material for jacket and short trousers. Price 50 cents.

No. 1220—This sweet dress has special charm for little girls. A simple style yet one of the most becoming, it features round yoke, peter pan collar, puffed sleeves and full gathered skirt. Bodice may be made with small tucks and scooped neck. Sizes 1, 2, 3, 4, 5, 6. Size 3 requires $1\frac{1}{4}$ yards 36-inch material. Price 35 cents.

No. 1974—A social success for girls on-the-go. Outfit consists of sleeveless dress with full skirt, self-belt or contrasting cummerbund, short bolero jacket with three-quarter length sleeves, button front and smart cape. This is a useful "best dress" ensemble for any young girl. Sizes 7, 8, 10, 12, 14. Size 10 dress requires $2\frac{3}{4}$ yards; jacket 1 yard; cape $\frac{1}{2}$ yard (all of 36-inch material). Price 50 cents.

No. 1842—For fashion-minded teens here is a romantic dress you will love. Just right for spring socials or for that all-important graduation dance. Designed on princess lines dress features becoming boat neckline, high empire waist defined with ribbon tie and full six-gore skirt. Pattern includes two other attractive styles. Sizes 10, 12, 14, 16. Size 14 requires $4\frac{1}{2}$ yards 36-inch material. Price 50 cents.

No. 1969—Smart back pleats are fashion keynote of this two-way blouse top. Slim skirt shows inverted side pleats, straight back and front. Blouse has cap or unmounted drop sleeves, revere neckline extending to pointed V at back and button front. May be worn belted or gently bloused with elasticized waist. Sizes 11, 12, 13, 14, 15, 16, 18. Size 14 blouse requires $2\frac{1}{4}$ yards; skirt 2 yards (both 36-inch material). Price 50 cents.

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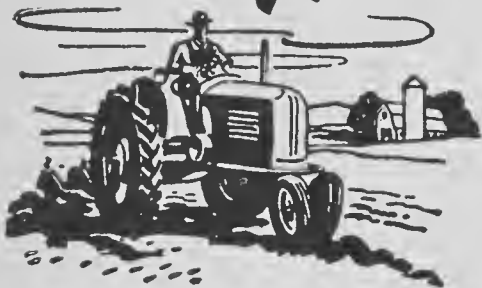
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Hogs or Beef . . .

Continued from page 10

Finally, about 35 per cent of the feed grain consumed by Ontario live-stock comes from the West. As a result, the delivered cost of western grain tends to establish the price of feed in the East. Therefore, the relative cost of feed per pound of gain becomes an all-important factor. Now, it takes only about three and one-half pounds of grain per pound of gain for hogs, as compared to six to eight pounds of grain per pound of gain for beef cattle. Because of this marked difference, the western producer has less of an advantage over the eastern producer in the production of hogs than he has in the production of beef.

IT follows that the advantage of the western farmer in beef cattle production is much more pronounced, particularly in the cattle raising area of southern Alberta. Here, the only shelter the cattle require is a wind-break around the feedlot. Alberta feeders can buy grain at one cent per pound or a little more, whereas feed grain costs Ontario farmers about three cents per pound. Furthermore, Alberta farmers can purchase feeders on the home market. Ontario farmers must rely, for the most part, on purchasing their feeders from the West. As evidence of this fact, 90 per cent of the 240,000-odd head that went on feed in Ontario last year were raised on western farms. Hence the Ontario farmer, because of long-haul shipments his feeders must undergo, experiences losses due to shipping fever, other diseases, shrinkage and delay in getting cattle onto feed. These are not important cost factors in the West.

There are two additional factors that tend to favor the western producer. First, beef carcasses moving East, unlike western hog carcasses, are not at any disadvantage, because they do not suffer any loss of quality in transit. In fact, there is some saving in overhead. The eastern packer must provide cooler space for seven to ten days to age beef purchased in the East. The western packer on the other hand, can put beef in refrigeration cars 24 hours after slaughter, and it ages in the six- to seven-day period of transit to the East. Second, transportation costs from Alberta to the East are about the same for a 650-pound live feeder steer and a 550-pound beef carcass.

The conclusion might be reached that the farmer who does not have a fluid milk contract, and is not a special crop producer, has to turn to either milk for manufacturing, beef cattle or hog production, or some combination of these three for his major source of income.

It would seem that hog production offers the most profitable outlet for feed grain during the next few years. In the East, the farmer handling a carload of cattle a year will not make enough money on straight grain feeding to make it worthwhile. Big feedlots, in both West and East are gradually taking over the beef feeding business. It is another mass-production method, based on the fact that a ten-dollar profit per head on 40 cattle is not enough to pay for a winter's work, but the same profit on 400 head is

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quite another consideration. In the words of the gambling man, "In the East the odds are on pork—in the West, they are on beef."

It should perhaps be emphasized, in conclusion, that beef cattle in the East offer good possibilities for profit if produced on a grass rather than a grain basis; i.e., with the bulk of the gain made on pasture. The reason is that the prices received are based at most times on the eastern market. If the Alberta feedlot operator makes only a small profit, the Ontario cattle feeder of grain is almost sure to lose because of the price differential for feed grain. The only answer for eastern farmers, wishing to produce beef, seems to lie in wintering feeder cattle through on roughage (hay, silage), and then finishing them on grass, with perhaps some grain feeding on pasture to bring them up to the top grades. ✓

Talk About Co-operation

Continued from page 15

belittle the value of such great teaching, it is not unreasonable to suggest that its influence has been disappointing. Why is this?

Failure to recognize and adopt proper codes of behavior to bring mankind more rapidly to a peaceful state is perhaps not surprising when it is recalled that for competence in any line of endeavor skill is necessary, as well as knowledge. This has been largely overlooked. Yet skill, unlike knowledge, cannot be quickly attained. It can be acquired only through experience, through "learning by doing," and this takes time. Furthermore, time alone isn't enough. Humanity has had a great deal of time. Success requires situations in which the necessary knowledge can be applied, in order to develop the necessary skill.

A truly successful society must be based most of all on unselfishness, the kind of unselfishness which involves kindness and generosity and forbearance, the kind of unselfishness which works both ways, taking neither less—selfishness in reverse—nor more than its due. But here is the trouble: the success of modern commerce is inseparable from self-interest. The corporation is a device for obtaining as great a return as possible for the investor-owner. Even the lowliest wage earner cannot dissociate himself from that widely accepted goal. If profits are unsatisfactory, the enterprise will disappear and his job with it. How can he be expected to learn the skills necessary for unselfish living?

Let us take a look for a moment at the means of acquiring a skill. Did you learn to milk cows when you were young? You probably watched your father milk hundreds of cows, while you played with the cat. You had the benefit of his expert instruction. That helped, of course, but not to the point where you could milk until you had practiced long and hard. Remember those aching arms? The point is that skill must be acquired, and it can only be acquired if there is opportunity to acquire it—in this case a cow to milk.

Let us not be impatient. It takes time for an individual to acquire a certain skill. It takes more time for

groups to develop collective skills, and it may take ages before man as a whole has acquired the skills which will permit him to live in plenty and peace.

This old world of ours is only a tiny speck of dust trailing along as a part of our solar system in the milky way. The milky way is our own galaxy viewed edgewise. One hundred thousand light years across, it is said to be, light travelling at a speed of over 600 million miles an hour. The big telescope in California is showing us that there may be literally millions of galaxies like ours—the nearest is a mere 800,000 light years away. As far as we know for sure, mankind is alone.

It is not possible to believe that all those worlds and all that space were put there without some purpose, or that mankind is not related to that purpose in some vital way.

We suggest that man's future in the plan depends entirely on the stature of man himself. Can he measure up to the test, now that he holds the power to plenty? Paradoxically, it is also the power which can destroy the human race. Can he gain the knowledge and skill necessary to place inter-human relationships on a proper basis? Can he organize his society and his economic affairs on sound moral principles? Can he do so to the point where each individual knows that he can be counted on to act the man, and not the beast, and therefore know that others can be counted on too? ✓



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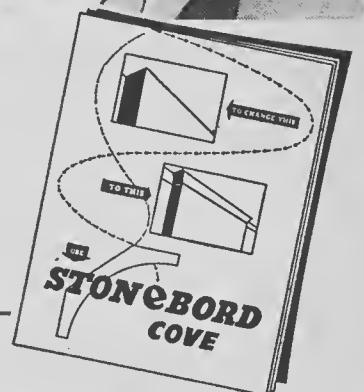
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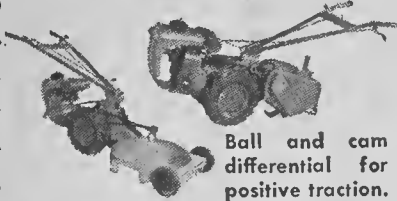
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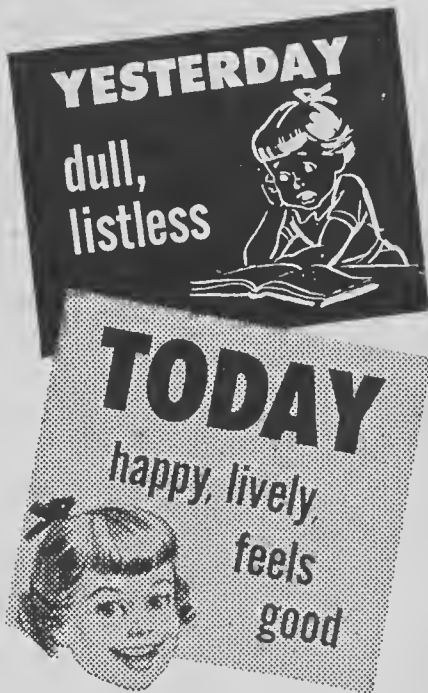
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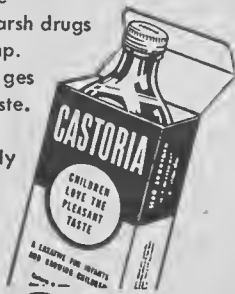
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The Country



TOO bad, Mr. Snowman—soon you'll be just a puddle! It was fun making you, but we're not sorry to see you melt away. We want warm spring weather to make the grass and flowers grow.

Sometimes if you are walking through the woods at this time of year you may be startled by the sudden rising of a pair of tufted ears above an old crow's nest that you thought was abandoned. Walk a little closer and you will see the round, cruel eyes of a Great Horned Owl staring fixedly at you. The bird lays two large white eggs in a nest which may have once belonged to a crow or hawk. How can these eggs hatch out in 30 below weather? That is one of

Nature's mysteries, but the eggs of the Great Horned Owl do hatch usually in March. The owlets are covered with thick white down and their parents feed them large quantities of rabbits, pigeons, ruffed grouse and squirrels. The owlets often stay in the nest until they are larger than their parents.

The Great Horned Owl, a large, tawny-grey bird, is perhaps the most fierce bird in North America. Ernest Thompson Seton, the famous naturalist, called this bird the "Winged Tiger of the Air."

Ann Sankey

Winkie and the Winds

by Mary Grannan

WINKIE huddled in a corner that night. The March winds had come with all their fury, and had blown in the cellar window, where the little mouse lived. Winkie didn't know what to make of this sudden invasion of his comfortable quarters. He looked about for a place to hide, and leapt in among the bags of bran that were stacked against the wall. He nuzzled into one of the bags until he managed to make sort of a pocket for himself. "Blow all you wish now, March winds," Winkie said triumphantly, "you can't get me." He went to sleep.

He was still sleeping when morning came. The storekeeper came to the cellar with a customer. They noticed the broken window. "It was a bad night," said the storekeeper. "The winds were fierce."

"They still are," said the customer. "I'll give you a hand with the bran. I want to get back home as soon as I can. It's going to be a bad day too!"

Each man picked up a bag of feed and went upstairs and out to the truck. The sleeping Winkie went with them. He awakened when he was tossed into the car. He realized what had happened and jumped to the road. The greedy winds laughed at the sight of him, picked him up as if he were a scrap of paper, and carried him whirling away.

Winkie cried out for mercy, but the winds were relentless. On and on went Winkie, high above the houses and church steeples. When the winds reached the deep pine woods, they turned suddenly, and dropped Winkie into a crow's nest.

The startled crow was angry, and demanded an explanation for Winkie's intrusion. "Please," sobbed Winkie, "don't scold me. I didn't come here on purpose. The winds carried me away from my home. Please may I stay for a little while?"

"No," said the crow, "there is not room for the two of us, but if you

tell me where you live, I'll take you home."

Winkie told the kindly crow where he had come from. The crow picked Winkie up by the scruff of the neck and flew above the tree tops with him. But the March winds saw them, and snatched Winkie away, whirling and tossing him through the air again.

After tossing him about for an hour, they tired of play and dropped him earthward. He landed in a school yard where many children were playing. A little boy named Johnny, picked up the mouse in his red mittened hand. Winkie nestled into the warmth of the mitten, and then looked up to see where he had landed. He cringed in fear when he saw the little boy. "Don't be afraid, Little Mouse, I won't hurt you" said Johnny. He took the mouse into the classroom.

"May we keep him, Miss Bolton?" the children asked the teacher.

"Until noon," smiled Miss Bolton. "We'll put him in the plastic box on my desk, and we can look at him, and make a song up about him, but we are not going to keep him. He might get away on us, and pretty soon the school house would be full of mice. They like to get into lunch boxes, you know."

The children sighed. They would have liked to have kept the mouse that the March winds brought to them. They made up a little song about Winkie.

*The March winds are blowing,
Above the school house.
Today they brought us
A little grey mouse.*

*The March winds are blowing,
They're fierce and they're bold.
We brought the grey mouse
In out of the cold.*

The children laughed at their own efforts. Johnny laughed too, but he became suddenly serious. "Miss Bolton," he said, "I'm going to take the mouse home with me. Perhaps my mother would let me keep him. This little mouse has no home, now."

Boy and Girl

"I know that, Johnny," said the teacher, "but I don't think your mother will want you to keep him. But you can try."

Johnny tried, but his mother shook her head. "No Johnny, I don't want mice in my house. I know you're sorry for him, but I'm sure he'll make out better if you let him go. Take him to the back steps and let him out of the box."

Johnny did as he was told. Once more the March winds picked up Winkie and whirled him away. Winkie cried out, "Let me down, please let me down."

"Nooo! Nooo!" howled the winds. "We're going to take you up." And they did. They carried him up and up and up, and dropped him into the Little Dipper in the sky. He fell into the starry vessel with a "clink." The Little Bear heard the sound, and called out. "Who's there? Who's in the Little Dipper?"

The bewildered Winkie poked his nose over the starry edge of the dipper. "I am," he said. "I'm a little mouse, named Winkie. The March winds have been blowing me about all the day. I'm so tired and afraid."

The Little Bear was sorry for the little mouse. "Don't be frightened,

Winkie. I'll talk to Mr. Moon, and when the winds go down tonight, he'll send you home on a moonbeam. Rest now, little Winkie." And the stars sang a lullaby to the little mouse.

*Sleep my little mouse,
Sleep my pretty mouse,
Dream your little mouse dreams
there alone*

*And when evening comes
On a moonbeam,
You, my pretty mouse, can slide
back home.*

Winkie slept until the sun went down and the moon came up. The moon asked Winkie where he would like to go.

"Please, Mr. Moon, I'd like to go to the cellar of the General Store at the Cross Roads," said Winkie.

The moon cast a ray through the open window of the cellar. Winkie stepped to the moonbeam and slid down, down, down, and into the cellar that he had left that morning. It had been a hard day. He found himself a safe corner, and called out to the winds, "Blow! March winds, blow! I'm not going outdoors again, until the April showers bring the May flowers." V

Sketch Pad Out-of-Doors

No. 61 in series—by CLARENCE TILLENUS



WHEN the thermometer slips down to 35 degrees below and the trees crack like rifle shots in the woods, you can probably be excused if you decide not to take your sketch book outdoors. But the animal painter must always be mindful of the motto of the ancient Greek painter: "No day without its line."

One must look about for a subject . . . and on the farm there is scarcely ever a time when a live model of some kind is not available around one of the barns. Cats, calves, pigs, horses, hens, sheep—the only difficulty is that there is not always enough light to distinguish outlines and proportion.

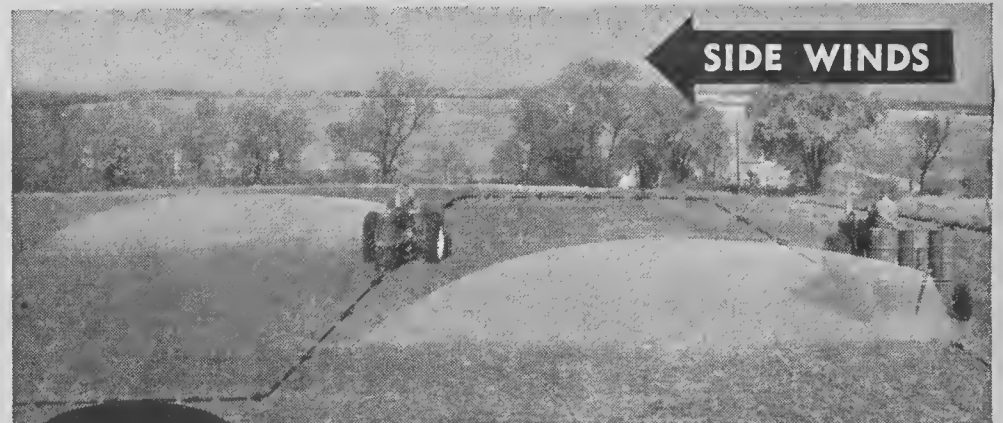
The accompanying sketch of a Holstien calf was one of many done one afternoon. While the calf was sleeping several sketches were obtained without too much trouble. However, he soon woke up apparently

feeling that his breakfast had been too sketchy (no pun) and when lunch was not forthcoming he became a "live" model indeed.

The sketch reproduced was done with lithographic crayon but very satisfactory tone sketches may often be gotten under the same conditions by using water-color or oils. Remember that there will not be any sharp separation of tones. Here and there a lighter patch or accent may be visible in the gloom. Generally you will find that a considerable knowledge of form and construction is required to tackle subjects like these but it is a problem well worth tackling. You may surprise yourself.

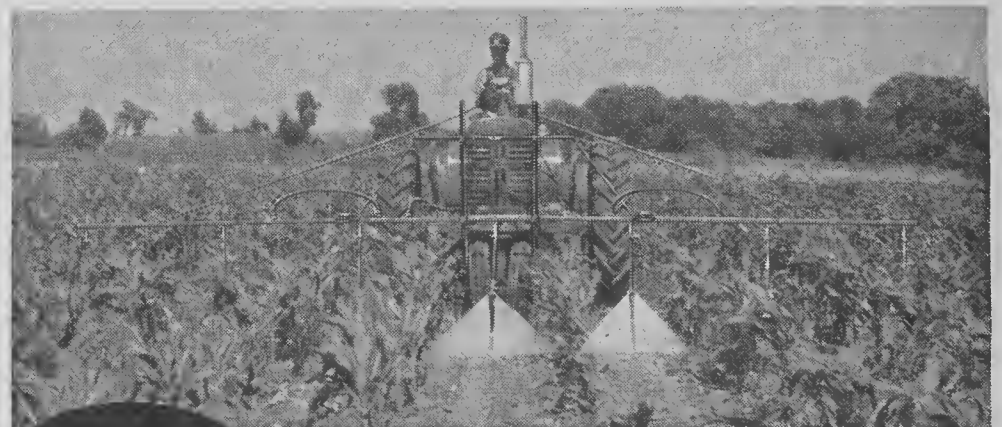
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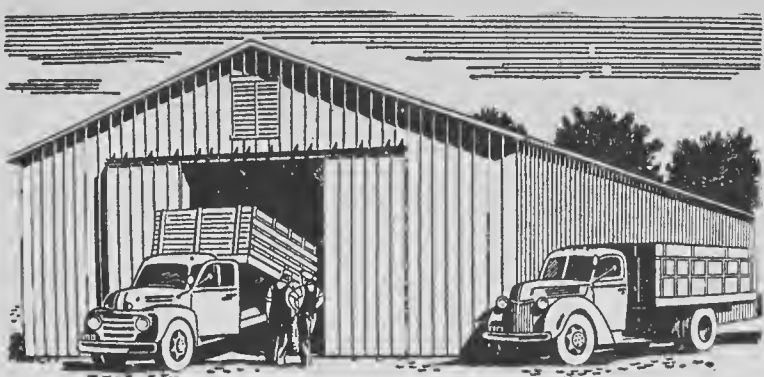
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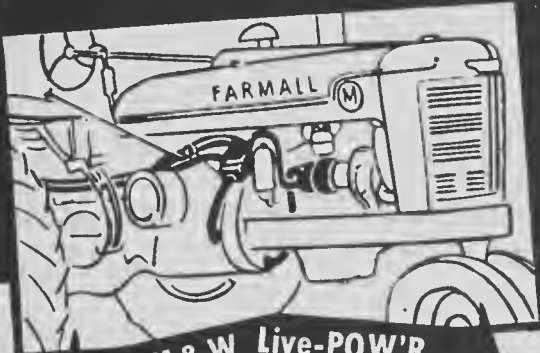
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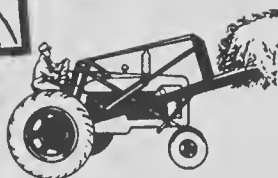
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Quebec Salon d'Agriculture

Breath-taking fashion displays go hand in hand with successful livestock auctions in this Montreal show place for agriculture



This Aberdeen-Angus steer was champion at the Quebec Salon d'Agriculture and was sold for \$4 per pound, making a total of \$3,536, in the auction.



Miss P. Granger, who was chosen as poultry queen, is shown here with S. Lauglois and P. Besner, attendants.



These five-cent Quebec apples were a popular exhibit in the produce section at the recent Salon of Agriculture.



Odette Ouellette (r.), New Brunswick potato blossom queen, with Wilma Godbout (l.) and Jacqueline Fraser.



A typical scene at the Salon, where a square dance competition drew large crowds and added to the gaiety.

(Please turn to page 85)

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Quebec Salon

Continued from page 84

IT'S not "Let's go to the farm this Sunday," in Montreal now. "Let's go to the Farm Show" is what they say. And Quebec and Maritime farmers, by putting their best foot forward in the Salon of Agriculture, in the heart of Canada's most populous city, are making it one of the fastest growing shows in Canada.

This is a show where farm and city folk meet, and farm groups are using it to tell their story. They are telling it with a flourish, too—one that is generating enough enthusiasm that, again this year, record crowds came out to see it. All of 150,000 people marched through the show mart this year,—almost double the attendance of the first show five years ago.

One flourish saw the first auction sale of beef show cattle ever held in the big city. At this sale Dealer Charlie Morantz bid \$4 per pound for the grand champion steer of the show—a total of \$3,536. Show officials called it the highest price ever paid for a steer in Canada. When the 14 steers in the sale had all gone through the ring, the average price figured at \$1.18 per pound, probably a record too.

A DELEGATION came from New Brunswick, to convince the Montreal housewife she can do no better than buy N.B. potatoes. That province was led by a trio of beauties—Potato Queen Odette Ouellette from Grand Falls, the heart of the big potato area, who was crowned queen at the Blossom Festival last summer, and her attendants, Miss Jacqueline Fraser and Miss Wilma Godbout.

Poultry queens were crowned, too, for farm people are fast learning the art of display—and the power of pretty girls to sell their products. The Show Mart—a new building measuring 500 by 150 feet, of which the entire main floor was given over to the farm show—seemed to be always crowded with fashion shows, square dancing competitions and other treats like free apple juice.

A wonderful display of Quebec handicrafts took up one end of the big building. Excellent wood carving, needlecraft, and fine pottery, all made in Quebec, caught the admiration of the crowds.

From growers themselves, and from commercial firms, came booths displaying the products of the orchard—fresh apples and canned and tinned products from Nova Scotia's famed Annapolis Valley, and more fresh apples, and a variety of products, including apple honey, apple jelly, apple wines, sherries and champagnes from the fast-growing Quebec apple industry.

Also designed to bring farm and city folk a little closer together was a model of an outstanding Quebec farm.

The Salon of Agriculture, of course, is for farmers too. There are machinery demonstrations, government educational exhibits and equipment displays; and on week-ends especially (being in Quebec, the show is open Sundays), many farmers plan to spend a day or two at the Fair. It is truly a place where farm and city folk meet, but better than that, it is a place where the farmer effectively displays his wares.

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VOL. LXXVI WINNIPEG, MARCH, 1957 NO. 3

Crop Insurance

THE appearance of the ninth report of the Saskatchewan Royal Commission on Agriculture and Rural Life, which deals with crop insurance, again raises the question of the practicability and suitability of this type of federal-provincial-farmer enterprise, as a means of injecting a larger measure of stability into the prairie agricultural economy. A federally sponsored and supported crop insurance program has existed in the United States since 1939. Its progress has been frequently examined in Canada, and the Saskatchewan Commission is the second royal commission to examine it officially on the prairies. Two years ago a Manitoba commission reported unfavorably with respect to its feasibility in Manitoba alone. Shortly after the war, a post-war reconstruction committee in Manitoba had given the idea its qualified blessing. Previous studies in Saskatchewan have been inconclusive. No thorough study appears to have been made of the subject in Alberta, although interest has appeared frequently among farmer groups.

The basis of the recommendations in the Saskatchewan Commission report is the proposed launching of an experimental crop insurance program in Saskatchewan, to be backed and administered by the Federal Government. The Provincial Government would assume regional administration costs and act in an advisory capacity. Only crops grown on certain specified land classes would be eligible for inclusion in the scheme, and experimentally at least, farmers would be given their choice of three basic plans. The experimental program would also be confined to all-risk insurance on wheat only.

There is naturally a widespread feeling among farmers in support of a practical scheme of crop insurance, if such a scheme can be devised. To secure all-risk insurance, at a cost which would appeal to a large majority of the farmers of any area, constitutes the difficulty: hence the experimental program recommended by the Commission. It may be that the Federal Government will wish to have nothing to do with the proposal, or that it might prefer to experiment in all three prairie provinces rather than in one only. There is this to be said for confining the experiment to Saskatchewan: what would be practicable in Saskatchewan would probably be practicable in the other two provinces. Whatever the view of the moment may be in any area of authority, it does seem that the recommendation of the Commission should be given very careful consideration, not only in Ottawa and Regina, but also in Winnipeg and Edmonton. ✓

The U.S. Drought

THE U.S. Department of Agriculture reported, at the beginning of the year, that in many of the drought-injured areas of the great plains, moisture conditions "are the worst in recorded history." Affected by the drought to the point of being dried out and likely to further damage by wind erosion, are some 29 million acres. Some two million acres actually were damaged by wind last fall, about one-third of which were in Kansas. Most of the damage has been done in Texas and Oklahoma, but for the area as a whole, soil blowing was much more serious than during the previous two years.

In Texas, around 100,000 people are given federal relief food; and in this state, with 254 counties, there are 235 that are designated "disaster areas." One southern county has 15,000 persons on its relief roll, and has many others who are eligible, but who have not applied.

All of this will be reminiscent of the dirty thirties, to many readers of The Country Guide. All of us who remember those desolate, drought-stricken years will have sympathy for the people in the hundreds of counties in the affected States. We hope that the curse of drought is removed from them, but we in Canada do not want it again. There has been some expectation that drought will again visit western Canada and solve the surplus wheat problem. Conceivably it might do so; but the surplus is an easier burden to carry than the sight of weary, work-worn women, and discouraged men. No, we do not want years-on-end of drought, ever again. May it leave Texas, Oklahoma, and Kansas soon, and lay its withering hand somewhere else than on Canada. ✓

The Poultry Industry

OF the several distinct branches into which the agricultural industry can be divided, it is safe to say that none has been so radically, permanently—even fearfully—changed by the developments of the post-war years as that concerned with the production of poultry meat, and eggs.

The poultry business is very susceptible to change, of course, because the volume of the marketable product can be either increased, or cut back, rapidly. Nature's method of increasing numbers has long since been found inadequate for the requirements of modern commercial poultry production. The artificial incubator was the first invention to suggest this, but the commercial hatchery soon provided indisputable proof. Notwithstanding her built-in equipment for both incubation and brooding, the hen is definitely dated and outmoded, once she has delivered the eggs. Nor is this all. Today, she must be of the right breeding and be able to produce at least 180 eggs in a year, or her owner will think that he cannot afford the luxury of keeping her around.

What is more striking is the fact that she has lost her freedom to lay, and roam, and brood outdoors at will. The farm flock, once the mainstay of the market for eggs, is now a much less important factor; and where it persists profitably, must consist of at least 300, and some would say 500 hens.

Undoubtedly the most striking and significant change to affect poultry production has been the amazing growth of the broiler business. Instead of producing three-pound broilers at thirteen weeks of age, as was once common practice, they can be marketed today at eight weeks of age and reared on as little as two pounds of feed. Indeed, broiler producers are looking forward to the day when they can be produced on two pounds of feed.

The factor that is creating considerable uneasiness among poultrymen, however, is the extent to which broiler production has been taken over by large corporations, principally, perhaps, by the meat processors. Some companies own their own hatcheries and the chicks, and supply a high proportion, if not all, of the feed required. The farmer, or producer, supplies the buildings and labor, and gambles his ability to avoid losses and secure rapid gains, against the chick owner's ability to make a satisfactory return from one or more of the opportunities open to him from the operation of a hatchery, the sale of feed, or the processing and sale of the broilers when they reach market age.

What does this kind of thing mean to agriculture? Is it likely to extend into other areas, involving other farm products? Does the rapid growth of cattle feedlot operations in the hands of non-farmers mean that it has been extended to cattle feeding even now? If changes of this kind can occur with broilers and steers, why not with hogs, lambs, and turkeys?

This is a period in which new scientific discoveries of value to agriculture are coming forward more rapidly than any individual can understand them and grasp their significance. The next decade will see many more such discoveries and new ideas. Agriculture must move fast to keep from falling behind. Farm organizations must be put in a position where they can study and appraise these new developments, and foresee trends on behalf of their individual members. Agriculture, in short, must

approach its basic problems realistically—which means less emotionally than many people have been in the habit of viewing them up to now. ✓

Education for Agriculture

THERE are probably more separate businesses involved in the agricultural industry than in all other segments of our national economy combined. This is a striking fact about agriculture, which, added to the unequalled diffusion of farming throughout the entire populated area of the country, accounts for many of its most serious problems. These circumstances account for the measure of isolation which exists, as well as for a relatively low level of education. These two factors combined are also largely responsible for the difficulties experienced in organizing the industry for the achievement of common objectives.

Education is a basic need of all democratic peoples, not only because it tends to develop the best that is in each of us, but also because it is a short-cut to experience. Many farmers today, who are good operators around 50 years of age, or older, and have achieved a reasonable measure of comfort and security, could have achieved the same position perhaps a decade earlier, had they not been denied the opportunity of a better education.

Agriculture is in sad need of more education for its young people, too few of whom finish high school, to say nothing of achieving a university training. More and more better-educated farmers will be needed in Canada during the coming years, and more and more agricultural graduates will be needed to meet the demands of agricultural science as research workers, teachers, extension workers, and administrative officers, to say nothing of the demands from other industry. It is, therefore, most disappointing to all who look to the future, to find that the enrollments in the degree courses in agriculture, more or less throughout Canada, are pretty well at a 1939 level. There are now more positions available for agricultural graduates than can be filled, and certainly there are more opportunities in agriculture itself for university graduates than ever will be filled in the next quarter-century.

What will agriculture do about this situation? What will farm parents and the young people themselves do about it? It is up to them. ✓

Hospital Insurance

FOR some time the Federal Government has been on record as willing to enter into a national health scheme that will exclude tuberculosis and the capital cost of hospital facilities. The conditions demanded have been that at least six provinces, representing at least half of the total Canadian population, must be willing to come into the scheme. Recently, the Ontario Government presented to the Legislature of that province for endorsement, a proposal somewhat at variance with that of the Federal Government, thus offering some promise of being the fourth province, along with British Columbia, Alberta and Saskatchewan, to favor a national health scheme. Nova Scotia is believed ready to come in. Manitoba, which has been lukewarm, may think better of it. In short, if Ontario and the Federal Government reach agreement, there is a likelihood of a national health scheme in Canada before too long.

Despite the feeling among many people that some scheme free of government and politics would be preferable, it is almost certain that a truly national health scheme would be welcomed by the vast majority of Canadian people. Organizations such as the Blue Cross and the organized medical services are excellent in urban centers, or in areas where their advantages are readily obtainable. The fact is that they are not universally obtainable, while health is universally important. Medical and hospital services are becoming increasingly expensive, as indeed are virtually all other services and necessities. Low-income families and those on fixed incomes, feel the growing pressure of rising price levels. These circumstances create conditions which governments cannot afford to ignore. It is better for the nation to bear the cost of a national health scheme, than for individuals to suffer prolonged illness unnecessarily. ✓

Odds And Ends

by THOMAS DUNBABIN

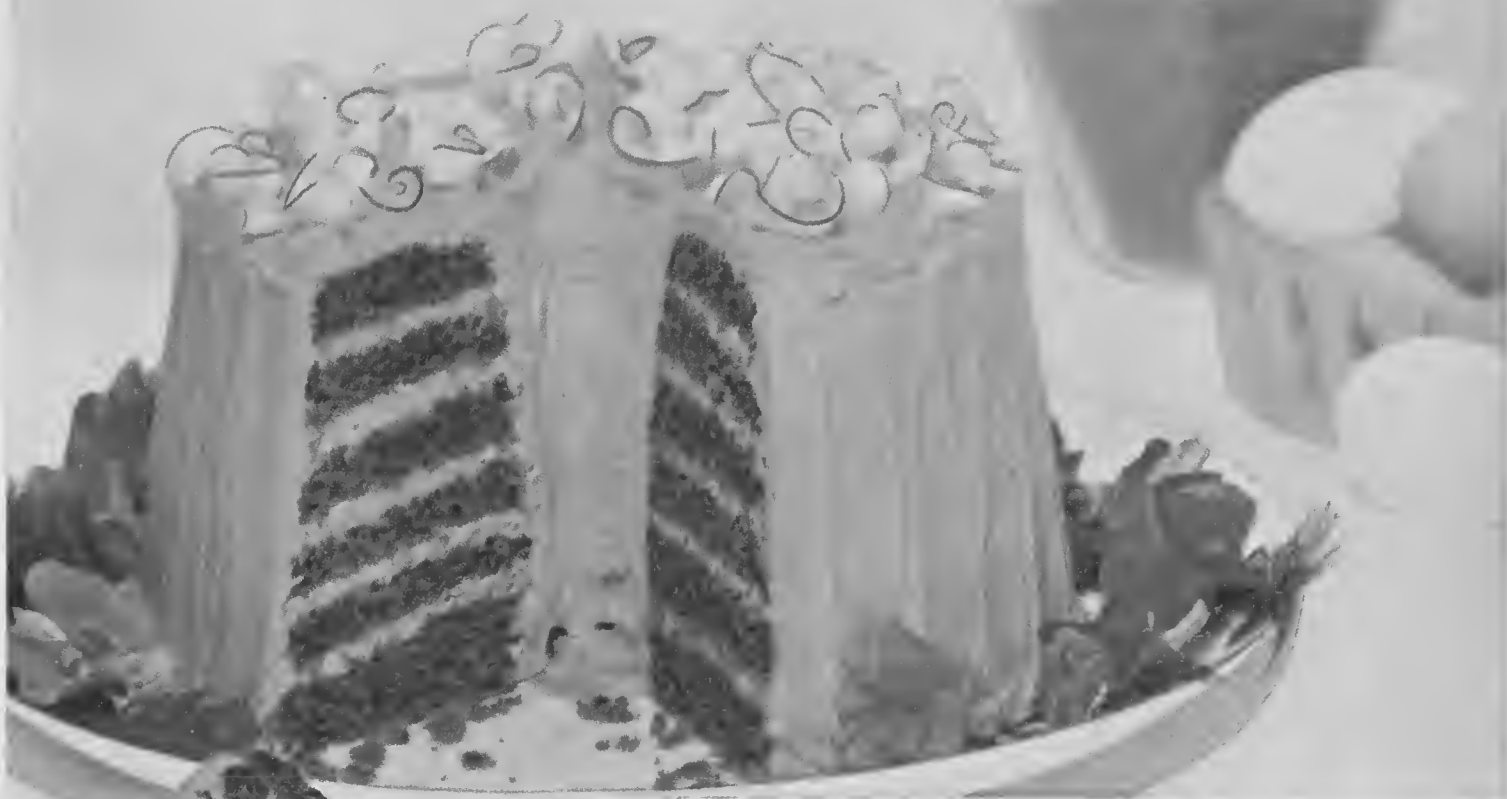
Why not sell eggs by weight? No one thinks of selling potatoes by the score. Why should eggs be sold by the dozen and not by the pound, since they vary very considerably in weight. This question is now being raised in England. It is pointed out that in Denmark eggs are sold by weight as a matter course. But, it is hard to change a custom in England, or indeed, in any English-speaking country. Proposals to sell eggs by weight have been made from time to time in Australia, but without effect. One reason given for making no change is that Australia exports many eggs to Britain where they have to be sold by the dozen. The Australian Egg Board puts export eggs in two classes, heavy weight, and light. In the heavy class, it is reckoned that on the average, ten dozen eggs will weigh 16 pounds and that the weight of each individual egg will vary from 1½ to 2 ounces. In the light egg class, 10 dozen eggs will weigh 15 pounds and the individual weights vary from 1½ to 2 ounces.

Films that save water. Canada has some dry patches in the southwestern part of the prairies and in southern British Columbia where the average rainfall is only about ten inches a year. However, the evaporation is not as heavy as in countries nearer the equator. Still, if Canada wants details of the Mansfield monomolecular film method of slowing down evaporation, Australia will gladly supply them. Mr. R. G. Casey, Minister for Science, as well as External Affairs in Australia, who was in Ottawa from November 4 to 7 has announced this. The film is called monomolecular because it is only one molecule in thickness. When spread over the surface of the water, it reduces the evaporation by 30 per cent or more. The cost of the film is only about one cent for 10,000 gallons of water, and the protection is expected to last for several years.

Twenty-six vanishing animals. North America has only two of the 26 animals officially listed as in danger of extinction. And one of the two would in any case not be found in Canada since it is a sub-tropical species. The two North American mammals are the black-footed ferret and the Florida keyer. The list given by the Survival Service of the International Union for the Protection of Nature was: The Tasmanian wolf or tiger (a marsupial); the Asiatic lion once fairly common in northwest India, the Persian wild ass; the Indian one-horned rhinoceros; the Sumatran rhinoceros; the Mindoro tanamaru (Philippines); the Arabian oryx; Przewalski's wild horse (Mongolia); the Bactrian eamel; the European bison or arochs; the Cretan wild goat; the Addo Bush elephant (Cape Colony); the Angola giraffe; Grant's sable antelope (Angola); the mountain zebra (South Africa); the Nubian wild ass; the wild chinchilla (South America); the solenadon (Caribbean Islands); the Caribbean monk seal; the Guadalupe fur seal (west coast of Mexico); the Hawaiian monk seal and the Suleiman markhor.

Your feather-light **Chocolate Chiffon Cake**
makes these scrumptious

Mocha Dessert Layers



*all it takes is you and
your 'Magic'*

Dependable Magic protects *all*
your ingredients...gives
you lighter,
even-textured
baked goods.



CHOCOLATE CHIFFON CAKE

- | | |
|----------------------------------|-----------------------------------|
| 1 cup once-sifted cake flour | 5 tablespoons cooking (salad) oil |
| 1½ teaspoons Magic Baking Powder | ⅓ cup water |
| ½ teaspoon salt | 3 egg yolks |
| ⅓ cup cocoa | 1 teaspoon vanilla |
| ⅞ cup fine granulated sugar | ¼ teaspoon cream of tartar |
| | 4 egg whites, at room temperature |

Sift flour, Magic Baking Powder, salt, cocoa and sugar together once, then into a large bowl. Make a well in flour mixture and add cooking oil, water, egg yolks and vanilla; mix these liquids a little with mixing spoon, then combine with flour mixture and beat until smooth. Sprinkle cream of tartar over egg whites and beat until very, very stiff (much stiffer than for a meringue). Fold chocolate mixture into egg-white, about a quarter at a time. Turn into *ungreased* tube pan (8 inches, top inside measure). Bake in rather slow oven, 325°, 1 to 1¼ hours. Immediately cake is baked, invert pan and allow cake to hang suspended until cold. (To "hang" cake, rest tube of inverted pan on a funnel or rest rim of pan on 3 inverted small cups.)



Extremely stiff egg-whites are a secret of chiffon-cake success.

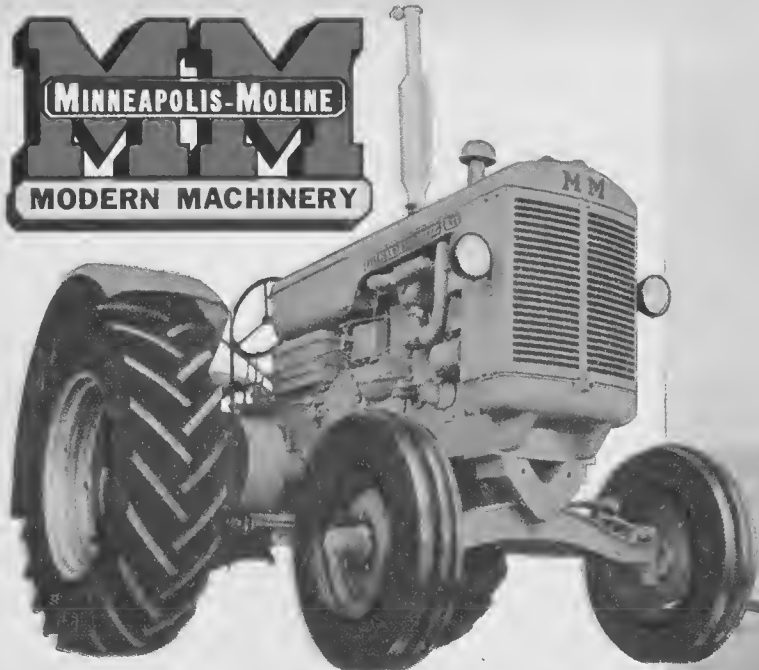


Fold chocolate mixture into the extra-stiff egg-whites.

MOCHA DESSERT LAYERS

- | | |
|------------------------------|---|
| ⅓ cup fine granulated sugar | 1 pint (2½ cups) chilled whipping cream |
| 2 tablespoons instant coffee | ¼ teaspoon vanilla |
| ⅛ teaspoon salt | 1 Chocolate Chiffon Cake |

Combine sugar, coffee and salt. Gradually stir in whipping cream; cover and chill 1 hour. Beat until softly stiff; add vanilla. Continue to beat mixture until stiff. Cut cold cake into 6 layers and put together with whipped cream between layers; frost cake all over with remaining whipped cream. Chill for several hours—preferably overnight. Decorate with shredded coconut or chopped toasted nuts. Yield—8 to 10 servings.



5-PLOW MODEL GB

Disc-plow up to 10 feet at a cut!

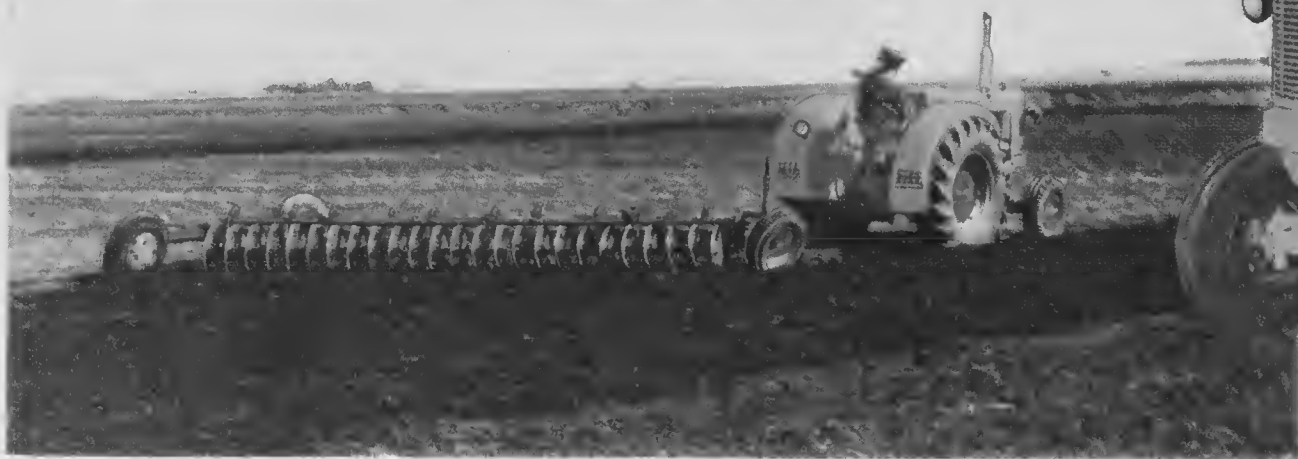
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